Pathways to Intimate Relationship Satisfaction Across the Adult Lifespan

Thesis

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Abstract

Relationship satisfaction – that is, how satisfied people are with their relationship – is one of the central constructs in the study of intimate relationships. The extensive literature on intimate relationships has focused almost exclusively on young couples in the early stages of their relationship. There is little research on relationship satisfaction among middle-aged and older couples in long-term relationships. The present thesis seeks to address this gap in the literature by taking into particular account couples in long-term relationships. The main focus of this thesis lies on different pathways to promote and maintain intimate relationship satisfaction across the adult lifespan.

There are a multitude of factors likely to affect intimate partners' evaluations of their relationship. These evaluations can change over time and at different points of the relationship. Since there has been little research examining predictors of long-term couples' relationship satisfaction, in the first study we reviewed and evaluated the current state of research on individual, dyadic, and contextual predictors of relationship satisfaction among middle-aged and older couples in long-term relationships on the basis of a specially developed conceptual model. Findings revealed that there are large differences between studies regarding the conceptualization and measurement of relationship satisfaction. As a consequence, uncertainty about whether studies have assessed the same construct makes comparisons of findings of studies difficult. Therefore, in the second study presented in this thesis, we gave particular consideration to the self-report measure used by us for measuring relationship satisfaction: the Relationship Assessment Scale (RAS; Hendrick, 1988).

The aim of the second study was to examine to which degree the seven items of the RAS – one of the most widely used self-report measures of global relationship satisfaction – measure two independent aspects of intimate relationship quality: global relationship satisfaction versus the frequency of relationship problems. In order to test this assumption, we

conducted group-split analyses, and a correlation analysis in a sample of 368 couples (*M* age = 48.3 years; age range = 19-82 years). Overall, results provided support that six of the RAS items reliably measure relationship satisfaction and RAS item 7 reliably measures the frequency of relationship problems, thus measuring different relevant aspects of intimate relationship quality. Thus, the RAS items can be used to reliably and validly assess both global relationship satisfaction and the frequency of relationship problems.

In the third study, we empirically tested whether and in what ways different pathways to relationship satisfaction in heterosexual intimate relationships exist. To do so, we examined potential gender and age differences or similarities in the associations of partner's supportive dyadic coping, commitment, and sexual satisfaction with relationship satisfaction. Our sample consisted of 122 young couples (*M* = 27.15 years; age range = 19-38 years) and 121 old couples (*M* = 70.86 years; age range = 62-82 years). Based on the findings that as resources, skills, demands, and relationship histories clearly differ between gender and age groups, we assumed that (a) young and old couples are equally satisfied with their relationships, but that (b) young versus old and (c) men versus women differ in the relational patterns between predictors and relationship satisfaction, and that some differences are more pronounced in women versus men. Results showed that there were no significant age differences between young and old couples in reported relationship satisfaction, but there was a significant gender difference in old couples, whereby men reported slightly higher relationship satisfaction than women. Further, multi-group analysis revealed both gender and age differences and similarities in the associations between the predictor variables and relationship satisfaction. The findings provide support for the assumption that young and old couples are equally able to maintain high levels of relationship satisfaction, but that the pathways towards this outcome may partially differ by gender and age group.

Zusammenfassung

Die Beziehungszufriedenheit ist eines der am meisten untersuchten Konstrukte in der Paarbeziehungsforschung. Da der bisherige Fokus der Forschung insbesondere auf jungen Paaren mit einer relativ kurzen Beziehungsdauer lag, ist noch wenig über die Beziehungszufriedenheit bei mittelalten und alten Paaren mit einer langen Beziehungsdauer bekannt. Die vorliegende Dissertation setzt sich zum Ziel, diese Wissenslücke in der Forschung zu füllen und dadurch zu einem besseren Verständnis der Beziehungszufriedenheit bei Paaren mit einer langen Beziehungsdauer beizutragen. Im Zentrum steht die Frage, ob und inwiefern es verschiedene Wege zum Erhalt einer hohen Beziehungszufriedenheit über die Lebensspanne hinweg gibt.

Die Beziehungszufriedenheit wird von einer Vielzahl an Faktoren beeinflusst, welche über die Zeit und abhängig von der jeweiligen Phase der Paarentwicklung variieren können. Es gibt allerdings nur wenige Studien, die Prädiktoren der Beziehungszufriedenheit bei Paaren mit einer langen Beziehungsdauer untersucht haben. Daher wurde in der ersten Studie dieser Dissertation der aktuelle Stand der Forschung zu individuellen, dyadischen und kontextuellen Prädiktoren der Beziehungszufriedenheit von mittelalten und alten Paaren mit einer langen Beziehungsdauer zusammengefasst und evaluiert. Als Basis dafür diente ein eigens dafür entwickeltes konzeptuelles Modell. Es zeigte sich, dass es zwischen den Studien grosse Unterschiede hinsichtlich der Konzeptualisierung und Erfassung der Beziehungszufriedenheit gab. Aus diesem Grund besteht Unsicherheit darüber, inwiefern die Studien dasselbe Konstrukt messen, und erschwert dadurch einen angemessenen Vergleich der Ergebnisse dieser Studien. Deshalb wurde in der zweiten Studie dieser Dissertation der von uns ausgewählte Fragebogen zur Erfassung der Beziehungszufriedenheit – die Relationship Assessment Scale (RAS; Hendrick, 1988) – genauer betrachtet.

Das Ziel der zweiten Studie war es, die RAS dahingehend zu überprüfen, ob die sieben enthaltenen Items zwei unabhängige Aspekte der Beziehungsqualität messen: globale Beziehungszufriedenheit und die Häufigkeit von Beziehungsproblemen. Diesbezüglich wurden Group-split- und Korrelationsanalysen bei einer Stichprobe von 368 Paaren (*M* = 48.3 Jahre; Range = 19-82 Jahre) berechnet. Es zeigte sich, dass sechs von sieben Items der RAS reliabel die globale Beziehungszufriedenheit messen, während Item 7 reliabel die Häufigkeit von Beziehungsproblemen misst. Die Resultate unterstützen die Hypothese, dass die Items der RAS zwei unterschiedliche, relevante Aspekte der Beziehungsqualität messen. Daher kann die RAS in der Paarbeziehungsforschung für die reliable und valide Messung der Beziehungszufriedenheit und der Häufigkeit von Beziehungsproblemen eingesetzt werden.

Die dritte Studie untersuchte anhand von 122 jungen Paaren (*M* = 27.15 Jahre; Range = 19-38 Jahre) und 121 alten Paaren (*M* = 70.86 Jahre; Range = 62-82 Jahre) die Annahme, dass unterschiedliche Faktoren zu einer hohen Beziehungszufriedenheit führen können. Dazu wurden die Zusammenhänge zwischen dem wahrgenommenen supportiven dyadischen Coping des Partners, Commitment und sexueller Zufriedenheit und der Beziehungszufriedenheit hinsichtlich Geschlechts- und Altersunterschiede getestet. Da sich in Abhängigkeit des Geschlechts und der Altersgruppe Ressourcen, Fähigkeiten, Anforderungen und Beziehungserfahrungen unterscheiden, wurden folgende Hypothesen gebildet: (a) Junge und alte Paare sind gleichermassen zufrieden mit ihrer Beziehung, aber die Zusammenhänge zwischen den Prädiktoren und der Beziehungszufriedenheit ist bei (b) jungen und alten Paaren, sowie (c) Männern und Frauen unterschiedlich, und diese Unterschiede treten vor allem zwischen Männern und Frauen auf. Die Resultate zeigten, dass sowohl junge als auch alte Paare eine sehr hohe Beziehungszufriedenheit angaben und sich diese nicht signifikant zwischen den Altersgruppen unterschied. Bei den alten Paaren wurde ein Geschlechtsunterschied gefunden, wobei Männer eine marginal höhere Beziehungszufriedenheit angaben als Frauen. Strukturgleichungsmodelle mit dem Akteur-

Partner Interdependenz Modell zeigten sowohl Geschlechts- und Altersunterschiede als auch Ähnlichkeiten im Zusammenhang zwischen den Prädiktoren und der Beziehungszufriedenheit. Die Ergebnisse unterstützen die Annahme, dass junge und alte Paare gleichwohl in der Lage sind eine hohe Beziehungszufriedenheit zu erhalten, es dabei jedoch Geschlechts- und Altersunterschiede in der Art und Weise gibt, wie diese erreicht und aufrechterhalten werden kann.

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1 Introduction

Couples in all ages may want to maintain a happy, stable relationship, but even in relationships that remain intact, initially high levels of relationship satisfaction tend to decline over time (VanLaningham, Johnson, & Amato, 2001). However, previous research has demonstrated that there exist different developmental trajectories of relationship satisfaction for different subgroups (J. R. Anderson, Van Ryzin, & Doherty, 2010). How can we account for this relationship change? In this thesis, the main important theoretical question is why some couples are able to maintain relatively high levels of relationship satisfaction over the course of their relationship. Most models of relationship change were developed in order to explain relationship decline and divorce, but they are less useful for understanding the different pathways of relationship satisfaction (J. R. Anderson et al., 2010). One influential framework that has shed light on the processes that contribute to stability and change in relationship satisfaction is the Vulnerability-Stress-Adaptation Model (VSA) developed by Karney and Bradbury (1995) that is depicted in Figure 1.

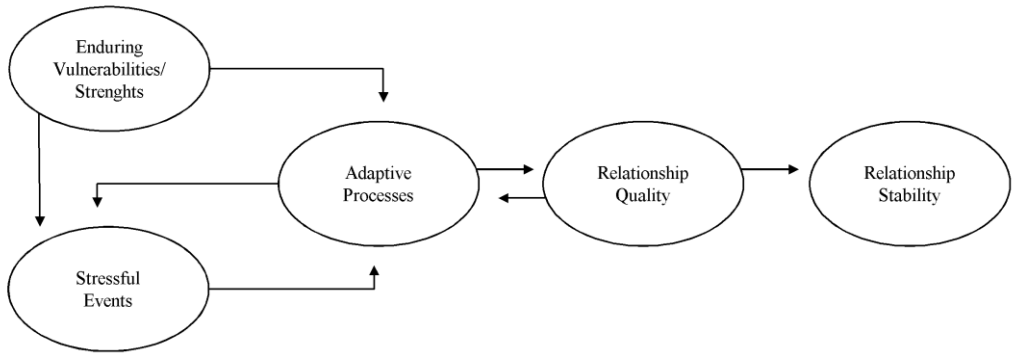

Figure 1. The Vulnerability-Stress-Adaptation Model (Karney & Bradbury, 1995).

Karney and Bradbury (1995) described adaptive processes (e.g., solving problems) that have direct effects on how relationships change over time. Further, the VSA model suggests that these processes are facilitated or constrained by partner's enduring vulnerabilities (e.g., personality traits) and the stressors external to the relationship (e.g., work

stress, financial strains). Karney and Bradbury (1995) proposed relationship quality and stability to be central components in this model of relationship functioning, and as they noted, one important aspect of relationship quality and stability is relationship satisfaction.

Relationship satisfaction is one of the most widely examined constructs in the study of intimate relationships. There are many good reasons for researchers and societies to examine intimate relationships and particularly relationship satisfaction due to its relation to other significant areas of life such as psychological well-being and physical health (e.g., Uchino, Cacioppo, & Kiecolt-Glaser, 1996). So far, the existing research on intimate relationships has focused predominantly on newlywed or young couples in the early stages of their relationship or marriage. Very little research has examined couples in long-term relationships, although the number of middle-aged and older couples has increased substantially in the last few decades and continues to rise. This thesis seeks to address this gap in the literature by focusing particularly on couples in long-term relationships.

This thesis is organized into five chapters. In Chapter 1, relationship satisfaction is defined and distinguished from related constructs. Further, measurements and approaches used in relationship literature to assess relationship satisfaction are outlined. Chapter 2 reviews and evaluates factors likely to affect relationship satisfaction among middle-aged and older couples in long-term relationships. On the basis of these findings, two empirical studies are presented in Chapter 3 and Chapter 4. The first empirical study takes a critical look at the Relationship Assessment Scale (RAS; Hendrick, 1988) – one of the most frequently used measures of relationship satisfaction. The second empirical study examines whether or not, and in what ways, men versus women and young versus old couples differ in their pathways to achieve relationship satisfaction. In Chapter 5, the thesis ends with a general discussion of study results, methodological considerations regarding the measure of relationship satisfaction and intimate relationships in general and finally some recommendations for future research.

1.1 Definition of relationship satisfaction and related constructs

In relationship literature, there has been substantial heterogeneity in the conceptualization and measurement of relationship satisfaction (e.g., Bradbury, Fincham, & Beach, 2000; Fincham & Linfield, 1997; Vaughn & Baier, 1999). To date, there exist a wide variety of terms referring to the overall quality of an intimate relationship such as marital or rather relationship *satisfaction*, *quality*, *adjustment*, and *happiness* (Graham, Diebels, & Barnow, 2011). The lack of consensus over the definition and conceptualization of each of these constructs is additionally confounded by the fact that measures of these constructs are highly interrelated with each other (Graham et al., 2011). Consequently, intimate relationship researchers do not always clearly distinguish between these constructs and have often used them interchangeably (Graham et al., 2011).

Relationship *quality* was originally conceptualized and composed of highly correlated components such as relationship adjustment, satisfaction, happiness, interaction, disagreements, and proneness to divorce or separate (Lewis & Spanier, 1979). It is emphasized that relationship quality is a two-dimensional construct and refers to both positive and negative evaluations of the intimate relationship and patterns of interactions (Fincham & Linfield, 1997; Fincham & Rogge, 2010). Relationship *stability*, on the other hand, refers to the durability of the relationship, i.e., whether intimate partners remain together or have separated or divorced (Karney & Bradbury, 1995). It is important to note that there are both intimate relationships that persist despite dissatisfaction, and relationships that separate or divorce despite satisfaction (Karney & Bradbury, 1995). Thus, from relationship stability no conclusions can be drawn about the quality of a relationship. Having both an enduring and satisfying relationship refers to relationship *success* (Glenn, 1998). Relationship *adjustment* refers to partners' evaluations of specific aspects of the intimate relationship that are believed to be important to maintain a functional intimate relationship such as frequent dyadic interactions and constructive problem solving (Sabatelli, 1988). Spanier (1976) found

evidence for four different components of relationship adjustment – relationship satisfaction, relationship cohesion, relationship consensus and affectional expression. Relationship *happiness* can be viewed as a component of relationship quality, referring to the "degree of personal satisfaction or happiness the individual feels about the marriage" (Johnson, White, Edwards, & Booth, 1986, p. 34). Relationship *satisfaction* can be seen as the process by which intimate partners subjectively evaluate the relationship as a whole (Fincham & Bradbury, 1987; Norton, 1983; Sabatelli, 1988; Vaughn & Baier, 1999).

Throughout this thesis the term relationship satisfaction is used to refer to intimate partners' subjective evaluations of their relationship. Due to the lack of a clear conceptualization and operationalization of relationship satisfaction, there are several self-report questionnaires available to assess relationship satisfaction that is outlined in the next chapter.

1.2 Measurement of relationship satisfaction

Self-reports from intimate partners, particularly in the form of questionnaires, are the most commonly used source of data in the study of relationship satisfaction (Bradbury & Karney, 2010). In fact, relationship researchers can choose between over 30 different measures to assess partners' evaluations of their relationships (Bradbury & Karney, 2010). Furthermore, the relationship literature has for several decades been characterized by conceptual confusion and disagreement about the measurement of relationship satisfaction (Glenn, 1990) and there is still controversy about the best way to measure relationship satisfaction (Bradbury & Karney, 2010). Existing measures of relationship satisfaction either assess relationship satisfaction from an *inter*personal or relationship standpoint, versus from an *intra*personal point of view. Concretely, there are measures of relationship adjustment (e.g., Dyadic Adjustment Scale; Spanier, 1976), which combine the assessment of objective and subjective relational characteristics, and there are measures of relationship satisfaction

(e.g., Relationship Assessment Scale; Hendrick, 1988), which assess only subjective evaluations of the relationships (Bradbury et al., 2000; Sabatelli, 1988). Global measures of relationship satisfaction are more widely used than measures assessing specific aspects or behaviors within the relationship (Vaughn & Baier, 1999). Nevertheless, both approaches to measuring relationship satisfaction offer advantages and disadvantages. A particular advantage of global measures is that it allows researchers to separate relationship satisfaction from its predictors and consequences (Sabatelli, 1988). In contrast, measures that assess specific aspects of the intimate relationship (e.g., communication behavior) show problems of "item overlap" between the measure of the predictor variable and the measure of relationship satisfaction (Fincham & Bradbury, 1987). Furthermore, McNulty and Karney (2001) found that global evaluations of the relationship were more positive and less variable from day to day than were evaluations of specific aspects of the relationship.

Another question that splits the opinions of relationship researchers is whether relationship satisfaction is a categorical or continuous construct (Fincham & Beach, 2006). Some researchers suggest that there are many specific degrees of relationship satisfaction, supporting the continuous assumption, whereas others favor the categorical assumption, stating that intimate partners can just be either satisfied or dissatisfied with the relationship (Diamond, Fagundes, & Butterworth, 2010).

Regarding the measure of relationship satisfaction, it is also important to note that relationship satisfaction can be viewed in two different ways: either as a process, or as an evaluation of a state at the time of data collection (Bradbury et al., 2000; Spanier, 1976). Most measures of relationship satisfaction ask intimate partners about their current feelings toward the partner and the relationship (Diamond et al., 2010). However, intimate relationships develop and change over time, thus the developmental stage of an intimate relationship also needs to be considered. For example, there is evidence that newlywed couples often report

high initial levels of relationship satisfaction, but that they also report a decline of the satisfaction levels soon after the marriage (Karney & Bradbury, 1997).

The trajectory of couples' relationship satisfaction across the adult lifespan is another research area in the study of intimate relationships where relationship research has shown varied findings. This is outlined in the next chapter.

1.3 Trajectories of relationship satisfaction across the adult lifespan

In early relationship satisfaction research, findings supported a curvilinear or U-shaped pattern of relationship satisfaction over time, with satisfaction level declining during the early years of marriage, being the lowest during the middle years, and then increasing again in the later years (e.g., S. A. Anderson, Russel, & Schumm, 1983; Burr, 1970; Gilford & Bengtson, 1979). However, these studies were cross-sectional and did not directly address the question of developmental trajectories of relationship satisfaction (VanLaningham et al., 2001). The few longitudinal studies that have taken into account long-term relationships that last more than ten years has found a gradual decline of relationship satisfaction over the life course, with no increase in the later years (Karney & Bradbury, 1997; VanLaningham et al., 2001). More recently, it has become obvious that not all couples follow the same trajectory of relationship satisfaction and experience a continuous decline, but rather that there exist different pathways of relationship satisfaction for different subpopulations (J. R. Anderson et al., 2010; Weishaus & Field, 1988). Concretely, J. R. Anderson et al. (2010) found evidence for five distinct trajectories of relationship satisfaction over time. The authors formed the five groups on the basis of both the initial levels of relationship satisfaction and the change in relationship satisfaction over time. The five distinct groups differ from one another with regards to factors internal to the relationship such as relationship problems and time spent in shared activities, and to a lesser degree a factor external of the relationship such as economic hardship (J. R. Anderson et al., 2010). It is noteworthy that J. R. Anderson et al. (2010) found

two thirds of participating married persons maintaining a happy, stable relationship over time, whereas the other third showed either a trajectory of continuous low satisfaction, low satisfaction followed by a decline, or a U-shaped pattern of initial high satisfaction with a subsequent decline, and recovery.

To date, there is a huge amount of literature focusing on why relationships dissolute or divorce, but according to the evidence that there exist multiple trajectories of relationship satisfaction over the life course, researchers should focus more strongly on the mechanisms that enable couples to maintain or stabilize high levels of relationship satisfaction. When examining trajectories of couples' relationship satisfaction, researchers have to consider the multitude of possible influences that have accumulated over the life course. Therefore, identifying the factors that account for changes in relationship satisfaction through the life course is of great importance (Bradbury et al., 2000). The influences on relationship satisfaction are multiple and draw from the individual, the dyad, and the context. The next chapter broadly outlines the current state of research regarding predictors of relationship satisfaction among middle-aged and older couples in long-term relationships.

2 Predictors of relationship satisfaction among middle-aged and older couples in long-term relationships[1]

2.1 Introduction

Relationship satisfaction and its respective correlates are topics of great interest to many relationship researchers. However, despite the growing number of middle-aged and older couples, there has been very little research examining middle-aged and older couples in long-term relationships. Therefore, this review provides an overview on existing literature examining individual, dyadic, and contextual predictors that contribute to relationship satisfaction among middle-aged and older couples in long-term relationships, i.e., being together with a partner for at least 10 years. We first present a conceptual model that suggests different pathways to long-term couples' relationship satisfaction. We then review findings of empirical research that have examined potential predictors of relationship satisfaction in middle-aged and older couples living in a long-term relationship. We conclude with a discussion and evaluation of methodological issues of the studies included in this review and point out future directions in this research field.

In this review, we use the term relationship satisfaction rather than marital satisfaction to refer to partners' subjective evaluations of both overall relationship satisfaction and the satisfaction with different aspects of the intimate relationship, e.g., partner exchanges.

Relationship satisfaction is likely to be influenced by traits of the individuals within the couple, dyadic processes, but also by contextual factors. In fact, Schneewind, Graf, and Gerhard (1999) suggested a process model of intimate relationships' development which includes typical challenges encountered by most couples in the course of the relationship. Concretely, for young or newlywed couples in the first years of their relationship or marriage,

[1] Parts of this chapter are submitted for publication (Subiaz, T., & Martin, M., submitted)

issues of income and household division, development of intimacy and attachment, and to reach agreement in terms of family planning are big challenges. However, middle-aged and older couples who remain together for some 10 years are more attuned to each other and have to deal with other relationship issues (Schneewind et al., 1999). In midlife, most couples have to manage both the maintenance of a stable and satisfying relationship and the rearing of their young or teenage children. Couples in their 60s, on the other hand, are faced with empty nesting, financial and retirement issues, and have to negotiate a new understanding and reorientation of their relationship (Schneewind et al., 1999). Regarding these different developmental tasks over the life course, intimate relationships, and predictors of relationship satisfaction are likely to differ for young and older couples, as well as for couples who have been in a relationship of 10, 20, 30 or more year's duration.

2.1.1 Conceptual model of pathways to relationship satisfaction

Several studies have suggested that relationship satisfaction and its predictors may be different over the course of a relationship. On the basis of this assumption, we developed a conceptual model provided in Figure 2 that presents different pathways to relationship satisfaction among middle-aged and older couples in long-term relationships (as adapted from Schneewind et al., 1999). To get a differentiated understanding of how long-term couples can maintain a satisfying relationship, it is necessary to distinguish between different developmental stages that couples must pass during the life course. We operationalized these developmental stages according to couples' age and in terms of a relevant keyword associated with the respective age. Our model is composed of three developmental stages. Stage I consists of middle-aged couples aged 40 to 59 years with young and teenage children. This stage has been designated the *parental- and work*-stage. We have designated Stage II the *couples'* stage where children have left the home. This stage consists of older couples aged 60 to 79 years. Stage III comprises very old couples aged 80+ years in the late stages of life. We

designate this stage the *caregiving*-stage, since most couples in this age face physical and mental impairments. All these developmental stages are associated with specific tasks or challenges couples have to handle. Furthermore, to pass successfully through these developmental stages, several predictors serve as regulative competences to maintain relationship satisfaction, and they do differ depending on couples' particular life stage and its developmental tasks. For example, in the middle years of a relationship, the vast majority of couples aged 40 to 59 years challenging both the compatibility between family and work and intergenerational support exchanges, i.e., care for children and aging parents. At this life stage, individual and shared responsibilities seem to be more important rather than focusing on the marriage itself (Moen, Kim, & Hofmeister, 2001). Moreover, we assume that particularly stable financial resources, dyadic coping, positive interaction behavior, commitment, shared leisure time, social support in the sense of support outside of the relationship, personality traits, and shared values/goals/attitudes/beliefs are important regulative competences for the maintenance of a stable and satisfying relationship. Regarding couples in late adulthood aged 60 to 79 years, however, many of the issues salient in midlife have diminished, and empty nesting, retirement from work, adaptation to new tasks and roles, e.g., grandparenthood, and the negotiation of a new understanding and reorientation of their intimate relationship appear as core issues. At this life stage, intimacy, e.g., sexual functioning, marital equity, e.g., gender role attitudes, and marital interaction, e.g., quantity and quality of time spent together seem to serve as main predictors of couples' relationship satisfaction. Very old couples, aged 80+ years, have to deal normatively with physical and cognitive impairments, the loss of significant others, and with caring for one's partner. At this life stage, perceived physical and mental health, marital support, and autonomy may contribute to couples' relationship satisfaction.

In addition, we expect that for having a satisfying and successful relationship it is also important, how the transitions between the different life stages are handled, so that they can

be successfully managed. Furthermore, we assume that not for all couples the same predictors are equally important because couples are not alike. Due to the fact that not all couples experience the presence of children over the course of their relationship, we recognize that our conceptual model is not applicable to all couples. Nevertheless, with this conceptual model we hope to advance the understanding of the developmental course of intimate relationships.

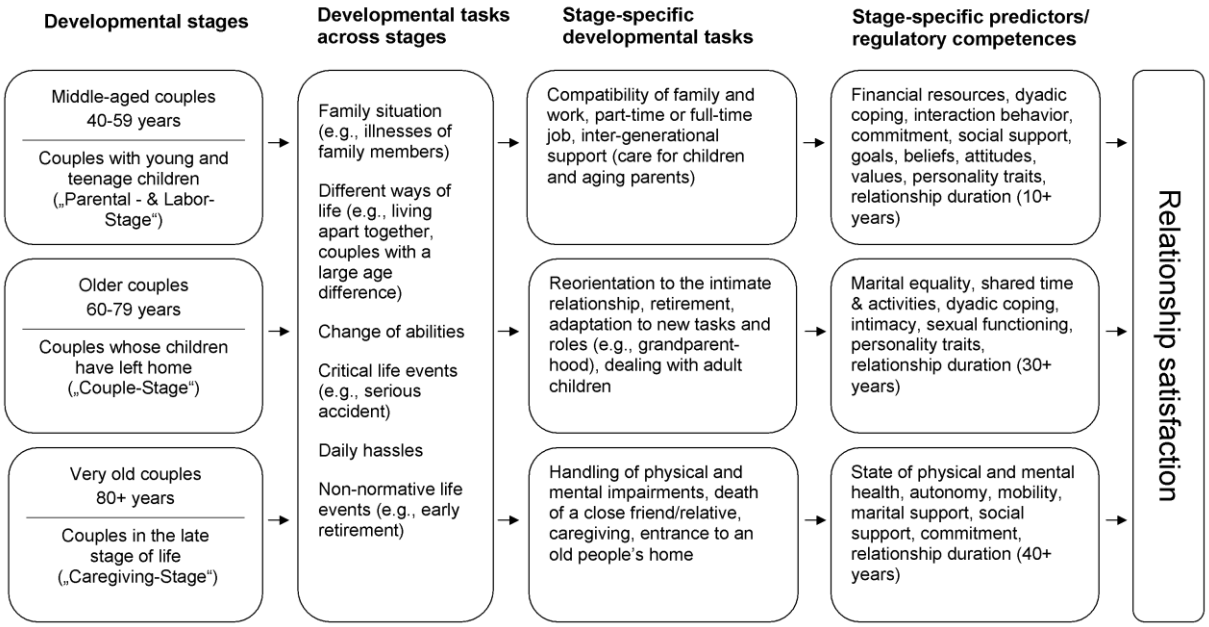

Figure 2. Conceptual model of different pathways to relationship satisfaction among couples in long-term relationships.

2.2 Effects of individual factors on relationship satisfaction

Individual factors refer to person-related variables that each partner of a couple individually brings to the relationship, i.e., demographic characteristics, life satisfaction, psychological well-being, and personality traits.

2.2.1 Demographic characteristics

Sex/Gender. Empirical findings regarding gender differences in relationship satisfaction are inconsistent. There has been the widely held assumption that women report lower levels of relationship satisfaction than men. For example, one study found that wives

reported higher marital burn-out or exhaustion with the marriage (Kulik, 2002) and in three other studies wives reported lower relationship satisfaction than their husbands (Bulanda, 2011; Kulik, 2002; Trudel et al., 2013). It seems that for men marriage appears as a path to better health and greater social integration through their wives' household and relationship responsibilities that, in turn, lead to husbands' higher relationship satisfaction (Bulanda, 2011). For women, however, marriage signifies a loss of power and more household and relationship responsibilities, which result in women's lower relationship satisfaction (Bulanda, 2011). In contrast, Baas and Schmitt (2004) found higher levels of wives' relationship satisfaction, particularly on the total score and the tenderness subscale. This result is consistent with a previous study by Hinz, Stöbel-Richter, and Brähler (2001), indicating a decline in husbands' marital tenderness with increasing age that resulted in lower levels of husbands' relationship satisfaction. Six studies, though, have found no gender differences in reported relationship satisfaction (Claxton, O'Rourke, Smith, & DeLongis, 2011; Finkel & Hansen, 1992; Levenson, Carstensen, & Gottman, 1993; O'Rourke, Claxton, Chou, Smith, & Hadjistavropoulos, 2011; Rosowsky, King, Coolidge, Rhoades, & Segal, 2012; R. Walker, Isherwood, Burton, Kitwe-Magambo, & Luszcz, 2013).

Age. In their review of longitudinal research on marriage, Karney and Bradbury (1995) reported that both higher age at time of initial measurement and higher age at marriage predicted increased relationship satisfaction. When marriage occurs at younger ages, there is a higher risk of low relationship satisfaction due to spending less time searching for the right partner, fewer financial resources, and less maturity (Amato, Johnson, Booth, & Rogers, 2003). Another study by Levenson et al. (1993) revealed that middle-aged couples (40 to 50 years) and older couples (60 to 70 years) did not differ significantly in relationship satisfaction. Similarly, Kulik (2002) found no significant correlation between age and relationship satisfaction, as well as marital burn-out or exhaustion with the marriage.

Likewise, in the study by Bulanda (2011) neither relationship satisfaction nor marital interaction, i.e., quality and quantity of time spent with one's spouse, was associated with age.

Relationship duration. Age and relationship duration are typically confounded. This may be the reason why marital duration has often been neglected in longitudinal research on marriage (Karney & Bradbury, 1995). Of the total 115 reviewed studies, 49 (43%) examined marriages that vary widely in length without controlling for relationship duration. Although Karney and Bradbury (1995) found that age at marriage is significantly related to relationship satisfaction, relationship duration is not. In addition, longitudinal examination of relationship duration showed that there is an increase in relationship stability but a decrease in relationship satisfaction over time. However, Clements and Swensen (2000) found no significant correlation between the length of marriage and relationship satisfaction among 72 couples aged 50 to 82 years. Likewise, Rosowsky et al. (2012) revealed in their study of 32 long-term married couples aged 57 to 89 years that there was no significant association between marriage duration and husbands' and wives' relationship satisfaction. The same effect was found in the study by Bulanda (2011), whereby marriage duration was not significantly associated with relationship satisfaction, but negatively related to marital interaction such as quality and quantity of time spent with one's spouse.

Education. Between 1980 and 2000 education levels increased for both women and men (Amato et al., 2003). It is suggested that higher levels of education are generally associated with higher income, better communication skills, lower risk of depression and a higher sense of personal control that, in turn, improve relationship satisfaction (Amato et al., 2003). Regarding the literature, it seems that education is generally more related to men's relationship satisfaction than to women's. For instance, Kulik (2002) found a positive correlation between husbands' education level and their relationship satisfaction scores, whereas education was not related to both relationship satisfaction and marital burn-out among wives. More recently, Bulanda (2011) showed that education was not related to

women's relationship satisfaction, but negatively related to men's relationship satisfaction. Another finding was that education decreased wives' marital interaction, i.e., quality and quantity of time spent with the spouse. This result is in line with Amato et al. (2003) showing that better education was associated with fewer marital interaction and higher risk of divorce. In addition, wives' increased participation in the labor force may increase the risk for work-family conflict, particularly when wives have highly demanding jobs.

Income. Bulanda (2011) showed that household income was not significantly associated with women's and men's relationship satisfaction and marital interaction. It appears that the absolute income of a couple does not affect their relationship satisfaction, but that stable financial resources do (Karney & Bradbury, 1995).

Health. In a study conducted by Levenson et al. (1993), satisfied couples reported better physical and psychological health than dissatisfied couples. Overall, they found that better physical and psychological health is related to higher relationship satisfaction, particularly for wives. The authors stated that no causal relationship between the variables can be drawn from the data, but a possible explanation could be that when marriages are dissatisfying, wives are more likely to become ill. In contrast, in a study of 116 retired Israeli couples, Kulik (2002) found only a positive correlation between perceived state of health and relationship satisfaction among husbands. In addition, there was a negative correlation between perceived state of health and husbands' and wives' marital burn-out. The study by Bulanda (2011) showed that for women and men, subjective health was positively associated with both higher relationship satisfaction and marital interaction. However, the author indicated that spouse's self-rated health is consequential for both women's and men's relationship satisfaction, but in different ways: it is positively associated with women's relationship satisfaction, and positively associated with men's marital interaction. Another finding of the study was that women's and men's relationship satisfaction and marital interaction were not related to own and partner's limitations in activities of daily living.

Religiosity. For religiosity, studies have revealed distinct results. For example, across the full sample of married men and women, Bulanda (2011) found that religiosity is positively associated with relationship satisfaction, whereas Kulik (2002) found a positive correlation only for husbands. Furthermore, there was a negative association between religiosity and marital burn-out, again only for husbands (Kulik, 2002). It is suggested that people with strong religious beliefs are willing to support the norm of a long-lasting marriage, have relatively low divorce rates, and report high relationship satisfaction (Amato et al., 2003). In contrast, Clements and Swensen (2000) found no significant correlation between religiosity as measured by church attendance and relationship satisfaction.

Race/Ethnicity. Results of the study by Bulanda (2011) indicated that race differences in relationship satisfaction were evident only among women, whereby African-American women experiencing less relationship satisfaction than Caucasian women. This finding is in line with previous work indicating that African Americans are more likely to divorce than Caucasians (White, 1990). It could be that African Americans experience more conflicts in their relationships that, in turn, reduce women's relationship satisfaction (Amato et al., 2003).

2.2.2 Psychological well-being

R. Walker et al. (2013) examined the role of satisfaction with different social network types, i.e., friends, confidants, relatives, and children, and psychological well-being, i.e., absence of depressive symptoms, for older couples' relationship satisfaction (M = 76 years). The authors found actor effects, whereby individual's satisfaction with the confidant network was significantly associated with relationship satisfaction. However, this association was no longer significant when health and well-being variables were entered into the model. Moreover, individual's satisfaction with children, relatives and friends was not associated with relationship satisfaction. These results are consistent with socio-emotional selectivity theory stating that older couples seek or emphasize positive, emotionally meaningful

experiences with significant others (Carstensen, Isaacowitz, & Charles, 1999). In addition, R. Walker et al. (2013) found that among older couples, individual's psychological well-being, i.e., absence of depressive symptoms plays the most important role for relationship satisfaction. It is noteworthy that the authors found no associations between individual's physical well-being, demographic variables, social network satisfaction and any of the partner variables and individual relationship satisfaction

2.2.3 Life satisfaction

Be, Whisman, and Uebelacker (2013) examined longitudinal actor and partner effects of relationship and life satisfaction in a sample of 1385 middle-aged and older couples. Regarding actor effects, they found that for both husbands and wives, relationship satisfaction at baseline was associated with increases in life satisfaction at follow-up and life satisfaction at baseline was associated with increases in relationship satisfaction at follow-up. Concerning partner effects, the authors found a positive association between a partner's relationship satisfaction at baseline and the other partner's relationship and life satisfaction two years later. However, a partner's life satisfaction at baseline did not predict the other partner's future relationship satisfaction. The study found evidence that compared to husbands, wives' relationship satisfaction served as a better predictor of life satisfaction than life satisfaction was a predictor of relationship satisfaction. For husbands, in contrast, both life and relationship satisfaction were equally important predictors of future relationship and life satisfaction, respectively (Be et al., 2013).

2.2.4 Personality traits

In the last decade, the most influential model to examine the association between personality traits and relationship satisfaction of intimate partners has been the Five-Factor Model of personality (Costa & McCrae, 1992a). Furthermore, relationship researchers focusing on the association between personality traits and intimate relationship satisfaction

have used different research paradigms (Malouff, Thorsteinsson, Schutte, Bhullar, & Rooke, 2010). Some researchers have looked at personality characteristics that enhance relationship satisfaction. To date, a consistent finding that has emerged in both cross-sectional and longitudinal research is the negative association between neuroticism, e.g., emotional instability, or the frequent experience of negative emotion, and relationship satisfaction (Karney & Bradbury, 1995; Shiota & Levenson, 2007). Of the five personality characteristics, neuroticism is the personality trait that plays the most significant role in negative relationship outcomes (Karney & Bradbury, 1995). In their review, Karney and Bradbury (1995) concluded that in general, negatively valued variables such as neuroticism predict negative relationship outcomes and that 10% of all variance in relationship satisfaction is attributable to neuroticism.

Other researchers have focused on the relationship between similarity or discrepancy in partners' personality dimensions and relationship satisfaction (Malouff et al., 2010). For example, Shiota and Levenson (2007) longitudinally examined the associations between similarity in Big Five personality traits and both baseline levels and 12-year trajectories of relationship satisfaction in middle-aged (40 to 50 years) and older couples (60 to 70 years). For similarity in total Big Five personality and baseline levels of relationship satisfaction, Shiota and Levenson (2007) found no significant associations across the entire sample or for each group separately. In addition, concerning the relationship between the individual Big Five factors and baseline levels of relationship satisfaction, the authors did not find significant relations among both groups. However, in terms of personality similarity and relationship satisfaction trajectories, greater personality similarity predicted a decline in relationship satisfaction over time. Concretely, similarity in *agreeableness* was significantly associated with more negative relationship satisfaction trajectories across the full sample, and similarity in *conscientiousness* with more negative relationship satisfaction trajectories only in middle-aged couples. Overall, similarity in partners' Big Five personality dimensions did not predict

relationship satisfaction well. According to the authors, personality similarity appears to be more helpful for young couples or for couples in the early stages of their relationship, generating intimacy, contributing to perceptions of equity in the relationship, and developing shared activities and goals. In addition, the authors stated that for young couples it may be more important to find a partner who is similar. It could be that for couples in established relationships, with being more attuned to each other, personality similarity does not play a significant role anymore (Shiota & Levenson, 2007).

Another study by Rosowsky et al. (2012) examined how husbands' and wives' similarity in personality traits affects couples' relationship satisfaction. To assess personality dimensions, the authors used the NEO-Five Factor Inventory and the Horney-Coolidge Tridimensional Inventory (HCTI; Coolidge, 1999) that measures compliance, aggression, and detachment. Rosowsky et al. (2010) found no significant associations, neither between overall NEO-FFI similarity or HCTI similarity, respectively, nor between each of the NEO-FFI dimensions or HCTI dimensions, respectively, and husbands' and wives' relationship satisfaction.

O'Rourke et al. (2011) examined within-couple trait averages and between-spouse trait similarity as predictors of relationship satisfaction among 125 married couples aged 50 to 82 years. Overall, results revealed statistically significant findings for each of the Five-Factor Model dimensions with the exception of neuroticism. On the *extraversion* scale, the higher within-couple levels of extraversion the higher husbands' and wives' relationship satisfaction. However, similarity in extraversion was unrelated to relationship satisfaction. Reported *openness to experience* was unrelated to wives' relationship satisfaction; for husbands, in contrast, similarity in openness to experience was associated with higher relationship satisfaction. Concerning *conscientiousness*, results showed that the higher within-couple averages, the higher husband's relationship satisfaction. Furthermore, dissimilarity in *conscientiousness* was unrelated to relationship satisfaction of neither spouse. Regarding

agreeableness, similarity on this trait predicted greater relationship satisfaction only among wives. In addition, neither for husbands nor wives do within-couple *agreeableness* averages predicted relationship satisfaction (O'Rourke et al., 2011).

In sum, the higher within-couple trait averages in extraversion, the higher husbands' and wives' relationship satisfaction. Moreover, higher within-couple trait averages in conscientiousness and similarity in openness to experience predicted husbands' relationship satisfaction. In contrast, wives' relationship satisfaction was positively related to similarity in agreeableness.

Claxton et al. (2011) examined discrepancies between self- and spousal reports of personality traits in relation to relationship satisfaction. Overall, results showed statistically significant associations between each of the Five-Factor Model dimensions and partners' relationship satisfaction. In sum, for each trait, when husbands rated their wives more positively, they reported higher levels of relationship satisfaction; likewise, when wives rated their husbands more positively for four of five traits, except for openness to experience, they tend to have higher relationship satisfaction levels. In addition, being perceived more positively by one's husband predicted wives' relationship satisfaction for all traits except extraversion. In contrast, being perceived more positively by one's wife predicted husbands' relationship satisfaction only for the traits of neuroticism and agreeableness. Interestingly, the authors found that trait levels predicted relationship satisfaction less consistently than positive reporting discrepancies. They emphasized the importance of positive discrepancies, i.e., when spousal reports are more positively than self-reports, in personality traits between husbands and wives. Moreover, since past research has pointed out the central role of neuroticism for relationships, Claxton et al. (2011) found that conscientiousness is the trait most strongly associated with relationship satisfaction.

Another research focus has been on the association between individuals' level of the Five-Factor Model dimensions and their partners' relationship satisfaction (Malouff et al.,

2010). For example, a study of 32 married couples aged 57 to 89 years by Rosowsky et al. (2012) examined how husbands' and wives' personality traits affect couples' relationship satisfaction. On the *NEO-FFI*, husbands' relationship satisfaction was not significantly associated with their own nor their wives' NEO-FFI dimensions. In addition, results showed that wives' relationship satisfaction was not associated with their own NEO-FFI dimensions. However, Rosowsky et al. (2012) found partner effects in the sense that the higher husbands' self-rated extraversion levels, and the lower husbands' self-rated conscientiousness levels, the higher wives' relationship satisfaction. On the *HCTI*, measuring compliance, aggression, and detachment, the authors found that the lower husbands' self-rated detachment scores, the higher husbands' and wives' relationship satisfaction. No significant associations were found between both husbands' and wives' relationship satisfaction and any of the wives' HCTI dimensions.

2.3 Effects of dyadic factors on relationship satisfaction

Factors referring to interpersonal processes between both partners in a couple are defined as dyadic factors, i.e., dyadic interaction behavior, marital support, marital equality, sexual satisfaction, commitment, and shared attention.

2.3.1 Dyadic interaction behavior

To overcome the limitations of studies that rely exclusively on self-report measures, a wide array of the relationship literature has focused on observed interpersonal behavior, or behavior exchanged, during relationship conflict and relationship problem-solving discussions (Bradbury et al., 2000). For example, Henry, Berg, Smith, and Florsheim (2007) examined the association between spouses' positive, i.e., warmth, and negative behavior, i.e., hostility, during marital interactions and relationship satisfaction among 98 couples aged 51 to 74 years. To assess positive and negative interaction characteristics, the authors utilized both observed behavior and spouses' perception of partner behavior in two distinct laboratory

contexts: a disagreement discussion and a collaborative task. Henry et al. (2007) showed that the perception of partners' positive behavior was related to greater relationship satisfaction, whereas the perception of partners' negative interaction behavior was associated with lower relationship satisfaction in general, following a disagreement discussion, and following a collaborative task. These findings are in line with social exchange theory (see Karney & Bradbury, 1995, for details) demonstrating that positive interaction behavior serves as reward and positive experience between partners that, in turn, improves relationship satisfaction.

Regarding *observed* spouse behavior, significant results were found only in the disagreement task, with observed positive behavior predicted higher relationship satisfaction of the other spouse, while observed negative partner behavior seemed to be detrimental for only wives' relationship satisfaction. This finding is in line with research indicating that women report higher stress in response to problems than do men (Birditt, Fingerman, & Almeida, 2005). An explanation of the mixed results concerning marital interaction behavior could be due to the varying contexts, i.e., collaboration vs. disagreement task, and methods, i.e., perception vs. observation (Henry et al., 2007).

Another study by Kaslow and Robison (1996) looked at the factors contributing to relationship satisfaction in long-term marriages of 57 couples. The authors assigned these couples to three groups – 29 satisfied couples, 15 midrange couples, and 13 dissatisfied couples. Regarding couples' problem-solving skills, results revealed that satisfied couples report less impulsive and more cooperative, supportive, and flexible ways of problem-solving patterns. Furthermore, satisfied couples reported having an appropriate space between them to allow problem resolution, and being less affected by spouses' moods. The authors also found that satisfied couples used more effective communication strategies, e.g., honesty, assertiveness, and perceived their partners as good listeners.

A study by Levenson et al. (1993) concluded that satisfied couples reported fewer relationship conflicts than dissatisfied couples. Moreover, the authors found that satisfied

couples experienced more pleasure than dissatisfied couples in several things, e.g., good times in the past, and views on issues.

Overall, couples' constructive problem-solving skills, e.g., effective communication and less impulsivity during a relationship conflict, emerged as important predictors of couples' relationship satisfaction. The results are consistent with socio-emotional selectivity theory stating that older couples seek or emphasize positive, emotionally meaningful experiences and avoid negative emotions within intimate relationships (Carstensen et al., 1999). In line with this theory, older couples' conflict resolution patterns are less emotionally negative and more affectionate (Carstensen, Gottman, & Levenson, 1995). Furthermore, older marriages seem to involve less potential for conflict, and greater potential for pleasure (Levenson et al., 1993).

2.3.2 Marital support

How couples support each other with regard to individual or dyadic difficulties is an important domain in relationship research. It is therefore surprising that only two studies so far examined the effects of perceived marital support and relationship satisfaction in long-term marriages. For example, Acitelli and Antonucci (1994), examining 69 married couples (M = 74 years), concluded that all of the marital support variables, i.e., giving and receiving support, as well as perceived and actual reciprocity, are more strongly related to wives' relationship satisfaction and emotional well-being than to husbands'. However, the authors could not confirm their hypothesis that perceived reciprocity, i.e., one partner's view that the social support given to the spouse is reciprocated, is more strongly related to general well-being than actual reciprocity, i.e., actual congruence of the partners' separate reports. Acitelli and Antonucci (1994) suggest that couples in the study may have been relying on equity norms or the common belief that marriage involves give and take. Regarding reciprocity, Sprecher (1992) stated that women are more likely to be distressed in inequitable exchanges

than men. According to Acitelli and Antonucci (1994), another possible explanation is that marital support as an emotional issue matters more to wives which is consistent with a study by Levenson et al. (1993) concluding that physical and psychological health were more related to wives' relationship satisfaction than to husbands'.

A similar study was conducted by Landis, Peter-Wight, Martin, and Bodenmann (2013), examining the association between supportive dyadic coping behavior and relationship satisfaction in a sample of 132 married couples (M = 68 years). Results revealed significant actor effects, whereby individual's supportive dyadic coping was associated with higher relationship satisfaction. However, this association was no longer significant when the perception of spousal support was entered into the model. Moreover, the authors found actor and partner effects, whereby spouses' perceptions of their partners' positive dyadic coping were significantly associated with their own and their spouses' relationship satisfaction. In contrast, own and partners' supportive coping was not associated with couples' relationship satisfaction. Landis et al. (2013) concluded that the perception of partners' supportive behavior was of high relevance for both partners' satisfaction. This conclusion is consistent with previous work showing that dyadic coping is highly predictive for relationship functioning (Bodenmann & Cina, 2006).

2.3.3 Marital equality

Perceived marital equality seems to be another contributing factor to relationship satisfaction in late adulthood. For example, Kulik (2002) examined in 116 retired Israeli couples the associations between perceptions of equality in marriage, i.e., division of family, financial and social roles, and two dimensions of marital quality, i.e., relationship satisfaction and marital burn-out or exhaustion with the marriage. A significant result was found only with respect to social roles. For both husbands and wives, the author found a negative correlation between perceived equality in social roles and marital burn-out, and a positive correlation

with relationship satisfaction. According to the author, this result can be attributed to reduced social contacts after retirement, and perhaps to the increased time that spouses spend together. Surprisingly, the author found a positive correlation between equality in housework division and marital burn-out among husbands. This result is consistent with Amato et al. (2003) suggesting that increases in husbands' share of housework reduces relationship satisfaction among husbands but enhances relationship satisfaction among wives. A possible explanation could be that husbands might perceive helping with household chores as a decline in social status (Kulik, 2002). Interestingly, there was evidence for a partner effect between wives' perceptions of egalitarian marital power and fewer levels of husbands' marital burn-out (Kulik, 2002). According to the author, wives seem to be more expressive than husbands and may complain more about a lack of support in household labor which, in turn, leads to husbands' higher marital burn-out. This is consistent with the finding that egalitarian marital power was positively related to wives' relationship satisfaction. The author also showed that egalitarian gender role ideologies were negatively associated with wives' marital burn-out. It may be that marital equality representing an emotional issue matters more to wives than to husbands (Acitelli & Antonucci, 1994). Moreover, the social shift from 1980 to 2000 enabled increases in less traditional attitudes toward gender, women's education, employment, and income that raised women's status, and thus increasing the possibility for more egalitarian marital relationships (Amato et al., 2003).

2.3.4 Sexual satisfaction

Yeh, Lorenz, Wickrama, Conger, and Elder (2006) examined in their longitudinal study the interrelationships and causal directions between sexual satisfaction, relationship satisfaction, and relationship instability in a sample of 283 middle-aged couples. Findings provide support for the causal link between sexual satisfaction and relationship satisfaction. Concretely, earlier higher levels of sexual satisfaction predicted an increase in relationship

satisfaction at follow-up, but earlier relationship satisfaction did not predict greater sexual satisfaction at follow-up (Yeh et al., 2006). Results of this study confirm social exchange theory (see Karney & Bradbury, 1995) indicating that sexual satisfaction serves as reward and positive experience between partners that, in turn, improves relationship satisfaction.

Further support for the link between sexual functioning and relationship satisfaction comes from a recent study by Trudel et al. (2013), examining 394 older couples. At both measurement points, the authors found a positive bidirectional correlation between sexual satisfaction and relationship satisfaction.

However, another study by Finkel and Hansen (1992) found no support for the assumption that current relationship satisfaction would be negatively related to sexual difficulties in earlier stages of the relationship. Nonetheless, the authors used retrospectively ratings of relationship satisfaction which raises the question of whether the memories of couples are influenced by systems and context variables or recall accuracy (Finkel & Hansen, 1992).

2.3.5 Commitment

Clements and Swensen (2000) examined the relationship between commitment to the spouse and three dimensions of marital quality, i.e., marriage problems, expression of love, and relationship satisfaction, in a sample of 72 married couples aged 50 to 88 years. The main finding was that commitment to the spouse and the intimate relationship was the strongest and most consistent predictor of couples' relationship satisfaction. The authors found that commitment to the spouse was negatively correlated with *marital problem variables* – problem-solving, personal care, Scale of Marriage Problems total score, and Marriage Problems Scale-50+ total score, indicating that individuals high in commitment to their spouse reported fewer problems in their marriage. The authors also showed that commitment was positively associated with several of the *love expression variables* – verbal expression,

moral support, material support, and Love Scale total score, and with *dyadic adjustment variables* – cohesion, satisfaction, and Dyadic Adjustment Scale total score. Taken together, individuals high in commitment expressed more love to their spouse and reported greater levels of relationship satisfaction

Kaslow and Robison (1996) examined the dimensions of dissatisfying and satisfying long-term relationships in 29 satisfied, 15 midrange, and 13 dissatisfied couples. They showed that satisfied couples report more internally motive reasons – love and relationship commitment rather than externally motivated motives – responsibility to partner and religious commitment regarding their current relationship commitment. In addition, the authors noted that among these three groups the following relationship satisfaction predictors was most often reported: love, mutual trust, mutual respect, mutual support, corresponding religious beliefs, loyalty and fidelity, mutual give and take, similar philosophy of life, enjoyment of shared fun and humor, shared interests, and shared interests in their children. According to Kaslow and Robison (1996), commitment to the spouse and intimate relationship comprises both the recognition of a partner's worth and the acceptance of the value of the couple as a unit, which, in turn, may lead to greater relationship satisfaction.

2.3.6 Shared attention

A study by Petrican, Burris, Bielak, Schimmack, and Moscovitch (2011) examined the effect of gaze control ability, i.e., capacity to inhibit gaze following of one's partner in response to situational demands, on relationship satisfaction in 40 older couples. Petrican et al. (2011, p. 1111) defined shared attention as "a triadic relationship wherein one individual follows an interlocutor's direct gaze to attend to the same object/location". According to Emery (2000), humans appear to perceive gaze following and other attention cues in other individuals and use gaze information in their social interactions and thus, the use of gaze following serves as a social signal and may be important for the development of mental state

attribution, i.e., theory of mind. It was suggested that poor gaze control predicted negative attribution, i.e., theory of mind. It was suggested that poor gaze control predicted negative relationship outcomes. Petrican et al. (2011) found that a reduced ability to inhibit gaze following, i.e., self-partner differentiation failure at the attentional level, was associated with lower levels of partner's relationship satisfaction. To be more precise, partners of spouses with poorer gaze control abilities perceived this behavior as a threat to their autonomy, and thus reported lower levels of relationship satisfaction. The authors concluded that this negative effect of poor gaze control and partner's lower relationship satisfaction was mediated by enmeshment, i.e., dispositional inability to differentiate one's own thoughts and emotions from a partner's. In sum, it was the overlapping variance of poorer gaze control and enmeshment, i.e., both types of self-partner differentiation failure that served as a predictor of lower partner relationship satisfaction.

Findings of recent clinical research suggest that gaze control ability in adulthood is an index of capacity of self-partner differentiation at the attentional level, i.e., decreased emotional involvement, and thus predicts adaptive social functioning in adulthood (Petrican et al., 2011).

2.4 Effects of contextual factors on relationship satisfaction

Contextual factors refer to the milieus and multifaceted environments in which intimate relationships operate (Bradbury et al., 2000). It is emphasized that intimate relationships cannot be fully understood without considering the environmental contexts in which couples are embedded (Neff & Karney, 2004). This section is divided into microcontexts and macrocontexts.

Effects of microcontexts on relationship satisfaction

According to Bradbury et al. (2000), microcontexts are defined as settings and circumstances that are likely to be central to couples and that have relatively direct links to

relationship outcomes, i.e., presence of children, presence of aging parents, stress, and employment/retirement status.

2.4.1 Presence of children

It is well documented in the literature that couples with children report lower relationship satisfaction than childless couples. For example, Finkel and Hansen (1992) examined the relationship between current and retrospectively rated relationship satisfaction and the number of children and child-rearing problems at earlier life stages in a sample of 31 married couples aged 55 to 77 years. The assumption that current relationship satisfaction would be negatively related to number of children as well as child-rearing problems found no support. This is surprising, remembering the widespread assumption that the more children the more stress in the relationship (VanLaningham et al., 2001). However, when examined retrospectively, relationship satisfaction showed a strong association with various life-course variables such as the number of children and child-rearing problems. The authors concluded that due to a relatively small sample size a generalization of these results to larger populations is limited. Furthermore, retrospective research has some limitations and raises the question of recall accuracy, or whether the memories of couples are influenced by systems and context variables (Finkel & Hansen, 1992).

The study by Bulanda (2011) showed that men and women with young children in the household report lower relationship satisfaction and marital interaction, i.e., quality and quantity of time spent with the spouse. This result suggests that children limit spouses' time shared together and thus consequences lower relationship satisfaction. The presence of an adult child in the household, however, appears to be more consequential for wives' relationship satisfaction and marital interaction. Possibly, having an adult child present is likely to enhance women's workload in the household and to less time to spend with the husbands (Bulanda, 2011). Moreover, this study revealed that providing financial assistance

to a child was not related to either men's nor women's relationship satisfaction and marital interaction.

2.4.2 Presence of aging parents

Bethea (2002) looked at the relationship satisfaction in 15 long-term married couples caring for an older parent in their home (treatment group) compared to 34 couples not caring for a parent (control group). Results indicated that couples with an older parent in the household reported lower relationship satisfaction (wives' satisfaction before parent moved in: M = 5.13, SD = .64; wives' satisfaction after parent moved in: M = 4.83, SD = .86), than do those without caring for a parent (wives' satisfaction 5 years ago: M = 4.41, SD = 1.45; wives' current satisfaction: M = 4.73, SD = 1.53). For husbands, the general pattern of the means was comparable to that of wives. Interestingly, the overall mean level of relationship satisfaction was higher for the treatment group, both before a parent moved into the home, and after a parent moved in.

Another study conducted by Lee, Zarit, Rovine, Birditt, and Fingerman (2011) focused on intergenerational support exchange with older parents and its association with middle-aged couples' relationship satisfaction. Results showed that the total amount of support given to and received from parents was not associated with couple's relationship satisfaction, but discrepancies in support given to and received from parents were. Those husbands who gave more support to their parent(s) than their wives reported lower levels of relationship satisfaction. The same effect on relationship satisfaction was found for those wives who gave more support to their parent(s) than their husbands. Another finding of the study was that the partner who received more support from parents in comparison with the spouse reported lower levels of relationship satisfaction. The authors suggest that married couples require equality between spouses regarding housework and other family issues. In contrast, a study by Bulanda (2011) showed that providing financial or instrumental support to an older parent or

parent-in-law was not significantly associated with neither women's nor men's relationship satisfaction and marital interaction.

2.4.3 Stress

Harper, Schaalje, and Sandberg (2000) examined the relationship between daily stress, intimacy, and relationship satisfaction in 236 married couples aged 55 to 75 years. Results showed that *stress* in the sense of daily hassles reduced both husbands' and wives' relationship satisfaction, whereas the perception of intimacy enhanced husbands' and wives' relationship satisfaction. Furthermore, the authors found that intimacy mediated the negative association between stress and relationship satisfaction. There was also evidence for partner effects, whereby one spouse's experience of daily stress leads to lower relationship satisfaction of the other, whereas perceived intimacy is associated with higher levels of the partner's relationship satisfaction. All associations were stronger for wives than for husbands. These results are consistent with previous findings showing that individual stress is always a dyadic phenomenon that affects both partners somehow (Bodenmann, 2000). In addition, Randall and Bodenmann (2009) stated that previous studies mostly have considered critical life events, e.g., severe illness, handicap, and unemployment, although daily hassles are even more detrimental to relationship satisfaction and its longevity. Regarding the stronger relationship between intimacy and wives' relationship satisfaction, Harper et al. (2000) suggest that wives show a greater sensitivity to emotional and relationship-related aspects, what is consistent with previous work suggesting that emotional issues matter more to wives than to husbands (Acitelli & Antonucci, 1994).

Further support for the association between psychological distress and relationship satisfaction comes from a study by Trudel et al. (2013), indicating a strong negative association between psychological distress and relationship satisfaction in both cross-sectional and longitudinal analyses. However, the authors found evidence that relationship satisfaction

serves as a better predictor of psychological distress than psychological distress is a predictor of relationship satisfaction. Thus, it seems that a good marital relationship can be a protective factor against the detrimental effects of psychological distress (Trudel et al., 2013).

2.4.4 Employment/retirement status

Retirement represents a transition where a change in family roles and structure occurs that in turn can influence couples' evaluations of their relationship (VanLaningham et al., 2001). Several studies have found that husbands' and wives' retirement affect each spouse's relationship satisfaction differentially (e.g., Davey & Szinovacz, 2004). For instance, Szinovacz (1996) examined the relationship between couples' employment/retirement status and three indicators of marital quality, i.e., conflicts, heated arguments, and relationship satisfaction. The author found that couples' employment/retirement patterns per se were not associated with any of the three indicators of marital quality. It is noteworthy that couples' employment/retirement patterns were related to relationship satisfaction only if they occurred in conjunction with specific spouse/couple characteristics. Concretely, results showed that wives' employment after husbands' retirement was associated with lower relationship satisfaction among traditional gender-role couples (Szinovacz, 1996). Another finding was that traditional gender-role employed husbands with retired wives report higher levels of relationship satisfaction than husbands in dual-earner couples. Furthermore, dual-retired spouses with recently retired wives reported lower levels of relationship satisfaction than spouses in dual-earner couples. In addition, Kulik (2002) showed a positive correlation between the length of retirement and marital burn-out or exhaustion with the marriage for both husbands and wives.

Another study conducted by Davey and Szinovacz (2004) examined the association between retirement transition and two aspects of marital quality, i.e., marital conflict and marital solidarity in two subsamples: continuously employed or retiring wives and husbands.

Results showed that wives' continuation to work after husbands' retirement was related to more marital conflicts for both husbands and wives, and to lower levels of wives' relationship satisfaction. This is consistent with previous work (Bulanda, 2011) indicating that the labor force participation of the women while the husband is not working was negatively related to relationship satisfaction and marital interaction of the women, but not of the men. Amato et al. (2003) stated that although wives' labor force participation enhanced couples' income, it also increased the risk for work-family conflict. Furthermore, Davey and Szinovacz (2004) found that husbands' retirement, however, had no effect on perceptions of marital conflict. In addition, the authors showed that wives whose husbands subsequently retired reported higher levels of marital solidarity, i.e., both partners' satisfaction with commitment, and involvement in their relationship.

According to Szinovacz (1996), these results are consistent with role theory and indicate that especially for traditional gender-role husbands the loss of the provider role undermines his status in the relationship and therefore husbands may apply pressure to their still employed wives to retire, possibly to restore the couple's gender-role attitudes. Wives' increased employment has been associated with a decline in her household work and a modest increase in his household work (Amato et al., 2003) what can be a reason for a decline in husbands' relationship satisfaction.

Effects of macrocontexts on relationship satisfaction

Macrocontexts are likely to be less central to couples, and therefore having more indirect or subtle effects on a couple's relationship functioning (Bradbury et al., 2000). Macrocontexts may be considered as broader social conditions and institutions, i.e., income distribution and physical attractiveness.

2.4.5 Income distribution

Baas and Schmitt (2004) examined the relationship between income distribution – as an indicator of couple's marriage type, i.e., is couple's income composed of earnings from either dual-earner couples or from husband-earner couples, and relationship satisfaction's total score and subscales, i.e., conflict behavior, marital tenderness, and activities. Results indicated that for wives from dual-earner couples, balanced income distribution increased individual coping, which in turn led to fewer marital conflicts, more marital tenderness, and more satisfying marital activities. For wives, results also showed that individual coping and emotional-focused dyadic coping mediated the effects of balanced income distribution on both satisfying marital activities and the relationship satisfaction total score. Results for husbands showed that both emotional-focused and problem-focused dyadic coping mediated the positive effects of balanced income distribution on marital tenderness and on the relationship satisfaction total score. Furthermore, for husbands it was shown that balanced income distribution enhanced individual coping and dyadic coping levels which, in turn, increased satisfying marital activities.

Taken together, egalitarian income distribution appears to enhance husbands' and wives' relationship satisfaction. It might be that shared involvement in household work and the labor force creates egalitarian and thus more satisfying relationships (Amato et al., 2003). With regard to gender differences, Baas and Schmitt (2004) showed that for wives both individual and dyadic coping were more important for relationship satisfaction than egalitarian income distribution. This is consistent with previous work suggesting that emotional and relationship issues are of great importance particularly for wives (Accitelli & Antonucci, 1994; Bulanda, 2011). For husbands, however, egalitarian income distribution had a positive effect on relationship satisfaction trough more emotion-focused and problem-focused common dyadic coping that, in turn, enhanced relationship satisfaction. Baas and Schmitt (2004) concluded that in long-term relationships, especially dyadic coping plays an

important role for couple's evaluation of relationship satisfaction. This conclusion is in line with previous work indicating that dyadic coping highly predicts relationship functioning (Bodenmann & Cina, 2006).

2.4.6 Physical attractiveness

The study by Peterson and Miller (1980) examined the effects of physical attractiveness on relationship satisfaction in 32 married couples aged 64 to 86 years. They found that partners' objective attractiveness, husband's self-rated attractiveness, and the wife's perception of the husband's attractiveness are associated with husband's relationship satisfaction. Wife's relationship satisfaction, however, was associated with husbands' objective attractiveness and the husbands' self-perception of attractiveness. Interestingly, (husband's) physical appearance has remained important for long-term couples' evaluation of relationship satisfaction, in particular for husbands. Peterson and Miller (1980, p. 251) suggest that "as men age, there is greater social pressure for them to be physically attractive, both to themselves and to their spouses." They also stated that being perceived as attractive by the spouse and objective judges enhanced not only husband's self-esteem, but also that of wives, that in turn increased their relationship satisfaction. It could be that for older wives' evaluations of relationship satisfaction, emotional issues such as time spent with the husbands are of greater importance than her physical appearance. Moreover, this study was conducted in 1980, where patriarchal marriages were normal, and since then there has been a shift in the distribution of marital power (Amato et al., 2003). Therefore, for the interpretation of the results the sociohistorical context of the study also needs to be considered.

2.5 Discussion

The purpose of this review was to give an overview of existing research examining individual, dyadic, and contextual factors that contribute to relationship satisfaction among middle-aged and older couples in long-term relationships.

Concerning individual factors, studies have revealed that *demographic characteristics* are inconsistently associated with relationship satisfaction and affect husbands' and wives' relationship satisfaction differentially. Whereas findings indicated that gender, age, relationship duration, and income are not significantly related to relationship satisfaction, education, religiosity, race/ethnicity and health are. For example, regarding education, compared to women, this seems to be more related to men's relationship satisfaction. However, studies have revealed disparate results. One study indicated a positive association between education level and husbands' relationship satisfaction (Kulik, 2002), whereas another study showed a negative relationship between education and relationship satisfaction (Bulanda, 2011). For wives, however, most results were not significant except the negative association between education and marital interaction, i.e., quality and quantity of time spent with the spouse. In terms of perceived state of health, studies showed that better physical and psychological health was related to higher relationship satisfaction, particularly for wives (Levenson et al., 1993). Regarding religiosity, findings showed generally a positive association with relationship satisfaction (Bulanda, 2011; Kulik, 2002). Regarding psychological well-being, R. Walker et al. (2013) found that among older couples one's own psychological well-being, i.e., absence of depressive symptoms, played the most crucial role for their relationship satisfaction. This is in line with the consistently found result that subjective well-being is highly correlated with relationship satisfaction (e.g., Uchino, Cacioppo, & Kiecolt-Glaser, 1996). Similarly, Be et al. (2013) found that relationship satisfaction and life satisfaction served as both predictor and outcome variable of one another. However, for wives, relationship satisfaction served as a better predictor of life satisfaction than life satisfaction was a predictor of relationship satisfaction. In addition, the associations between personality traits and relationship satisfaction have received supportive evidence from several studies. For example, it is well documented in the literature that neuroticism plays a substantial role in negative relationship outcomes (Karney & Bradbury, 1995). The

results with regard to the other four personality dimensions are less consistent. Overall, all of these traits are positively valued variables and tend to have positive effects on relationship satisfaction (Karney & Bradbury, 1995).

Regarding dyadic factors, intimate partners' interpersonal exchanges are of great importance for long-term couples' relationship satisfaction. Overall, partners' positive behavior predicted higher relationship satisfaction, whereas partners' negative behavior predicted reduced relationship satisfaction. Furthermore, less traditional attitudes toward gender enhanced both husbands' and wives' relationship satisfaction (Kulik, 2002). Moreover, a longitudinal study demonstrated that sexual satisfaction causes couples' relationship satisfaction and not vice versa (Yeh et al., 2006). Additionally, commitment to one's partner and the relationship appears as a strong predictor of relationship satisfaction (Clements & Swensen, 2000). Another finding emerged from the literature was that the ability to inhibit eye contact with one's partner, as a function of adaptive social functioning in adulthood, predicted higher partner relationship satisfaction (Petrican et al., 2011).

Regarding microcontexts, existing literature showed that care for children and aging parents has detrimental effects on couples' relationship satisfaction (Bulanda, 2011; Finkel & Hansen, 1992). Furthermore, daily stress or hassles served as a threat to relationship satisfaction, whereas intimacy enhanced couples' relationship satisfaction (Harper et al., 2000). Findings also revealed partner effects, whereby daily stress of one partner reduces relationship satisfaction of the other partner, whereas perceived intimacy enhances partner's relationship satisfaction. Overall, these associations were stronger for wives (Harper et al., 2000). Furthermore, it was found that couples' employment/retirement status affects husbands' and wives' relationship satisfaction differentially. A consistent finding emerged from the literature is that wives' employment after husbands' retirement reduced couples' relationship satisfaction.

Findings regarding macrocontexts revealed that egalitarian income distribution, i.e., couple's income is composed of earnings from dual-earner couples rather than from husband-earner couples, enhances both husbands' and wives' relationship satisfaction through more dyadic coping for husbands, and trough more individual and dyadic coping for wives (Baas & Schmitt, 2004). Another study showed that husbands' physical attractiveness as rated by themselves, their wives and objective judges play an important role for the evaluations of relationship satisfaction, in particular for husbands (Peterson & Miller, 1980).

Methodological issues in the studies

The studies included in this review contain some methodological limitations. Findings of the 25 studies highlighting predictors that affect long-term couples' relationship satisfaction were sometimes difficult to compare due to different methodological approaches. Using different approaches can yield different research findings and make a generalization of the results to other populations difficult. A problematic methodological limitation characterizing much of the literature is that 20 studies are based on cross-sectional data, whereas only five studies have applied a longitudinal approach. The limitations of cross-sectional studies are well documented in the literature. Findings of cross-sectional studies cannot support causal conclusions between the independent variables and couples' relationship satisfaction. In order to investigate causal sequences between variables and the development and change in relationship satisfaction and stability, longitudinal research is required (Karney & Bradbury, 1995).

Because no research have been conducted so far regarding the effects of income distribution (see Baas & Schmitt, 2004) and Coolidge's (1999) developed HCTI personality dimensions on relationship satisfaction, two studies have used an explorative design. The lack of studies on these issues makes it difficult to make any conclusions and thus more comparative studies are needed.

Overall, 21 studies have relied exclusively on questionnaires and self-report measures, i.e., structured interview. Although self-report measures are predominantly used to assess relationship satisfaction (Graham et al., 2011) this kind of data might be confounded by couples' response styles, social desirability, and inaccurate perception (Norton, 1983). According to Fincham and Bradbury (1987), couples have the tendency to positively evaluate any item concerning their relationship in the sense of a positive evaluative bias. So it is not surprising that in most non-clinical studies couples reported high relationship satisfaction, thus there has been an overrepresentation of satisfied couples what limits the generalization of the findings to dissatisfied couples. Future research should take into account that satisfied couples may differ in significant ways from couples who are less satisfied with their relationship, e.g., dissatisfied couples have more conflicts.

Particular consideration should be given to the measurement of relationship satisfaction. Studies varied in the relation to the used self-report instrument to assess relationship satisfaction (see Table 1 for details). In a meta-analysis on reliability of relationship satisfaction, Graham et al. (2011) concluded that the reliability of relationship satisfaction scores seems to be higher with greater respondent age and relationship duration, and thus relationship satisfaction may be different across the course of a relationship. A possible explanation is that relationship satisfaction is "more cohesive in more established relationships, whereas there is more variability between items in young relationships" (Graham et al., 2011, p. 46). The different measurement instruments to assessing relationship satisfaction (see Table 1 for details) might be a reason for the different research findings and make a comparison of them difficult. Thus, for further studies it would be desirable to assess relationship satisfaction in a uniform way. To do so, it would be first important to define this construct properly and to use a consistent terminology to get rid of the conceptual confusion (Fincham & Bradbury, 1987).

Most studies, however, have used a global measure of relationship satisfaction. While it is stated that using global evaluations of one's relationship might simplify the interpretation of the resulting scores, it also raises the question of what these actually represent (Fincham & Bradbury, 1987). What do participants in fact evaluate when they are required to generally evaluate their relationship? One partner might think of the couple's interaction behavior, whereas the other partner might take sexual satisfaction as a criterion for evaluating global relationship satisfaction. In addition, the evaluation criterion for relationship satisfaction might also substantially differ between different age groups of couples.

Apart from self-report measures, two studies have also used behavioral observation to collect data, one study additionally included objective ratings to assess physical attractiveness of spouses, and another study was also based on a gaze control task. Given that most studies in this review are based on self-report measures, there is a need for research that ideally applies a multi-method approach (i.e., self-reports, behavioral observation, and physiological data) to get a better understanding of long-term relationships.

Another methodological limitation characterizing much of the literature is that many studies collected data from couples vary enormously in size and age range (see Table 1 for details). Samples of the studies range from 15 to 7,372 couples, but on average the samples are relatively small. Consequently, small samples lead to a lack of statistical power and this may undermine the validity of several studies. In addition, a study with a too small sample size may produce inconclusive results and that raises the question to which extent they can be generalized (Karney & Bradbury, 1995). Three studies distinguished between middle-aged couples aged 40 years and over and older couples aged 60 years and over and have examined potential age differences. Two studies have included only middle-aged couples, and four studies have comprised only older couples (e.g., Peterson & Miller, 1980). Focusing on couples in long-term relationships cause that age and relationship duration are mostly confounded, and this could reflect a cohort effect. These couples often maintain traditional

attitudes toward gender and thus the findings cannot be generalized on couples who have become less traditional in their gender attitudes since the social shift from 1980 to 2000 (Amato et al., 2003). Moreover, most studies comprise Caucasian couples with relatively homogeneous ethnic and demographic characteristics. Thus, a generalization of the findings to diverse couples may be limited.

Limitations and directions for future research

Regarding the current review, some limitations should be considered. First, with this review we attempt to provide a comprehensive overview of existing literature on predictors of relationship satisfaction among middle-aged and older couples in long-term relationships. Nevertheless, a large number of studies were screened out due to our inclusion criteria. Most of these studies (n = 71) were excluded due to the recruitment of individuals rather than couples, and due to couples' age involved in these studies. However, we believe that the strengths of this review are the inclusion of couples rather than individuals and that we strongly made sure that both partners' age was at least 40 years and older.

Second, we conducted a systematic rather than a meta-analytic review. Meta-analyses summarize the results of several studies and provide a general estimate of the effect size or the magnitude between two variables (E. Walker, Hernandez, & Kattan, 2008). An important condition of meta-analyses is the substantial homogeneity in the measured variables (E. Walker et al., 2008). As mentioned above, the outcome term varied between studies included in this review and there has been substantial heterogeneity in the measurement of relationship satisfaction. As a consequence, uncertainty about whether studies have assessed the same construct makes comparisons of findings of studies difficult and thus a meta-analysis inappropriate. Furthermore, there exist further methodological heterogeneity between studies, i.e., cross-sectional vs. longitudinal data, and self-reports vs. observational behavior, that makes an interpretation and final conclusion of the findings difficult. Moreover, the sample

sizes of studies are relatively small. As mentioned above, small sample size can produce inconclusive results and limit the generalization of them (Karney & Bradbury, 1995). Taken together, due to the substantial methodological heterogeneity and thus limited comparability between studies, conducting a meta-analysis was not appropriate and would have led to misleading results (E. Walker et al., 2008).

The lack of studies examining couples in long-term relationships underscores the need for further work in this research area. Taken together, regarding the 25 studies included in this review, there is obviously a need for longitudinal studies on more representative and culturally/ethnically diverse long-term relationships, ideally applying a multi-method approach, i.e., self-reports, behavioral observations, and physiological measures with data collected from a large sample size and that consider a dyadic approach, thus both partners in a couple are included (Kenny, Kashy, & Cook, 2006). This kind of research is necessary to broaden our knowledge on how and why relationship satisfaction changes over the life course. The use of dyadic data allows researchers within-couple comparisons. To gain further understanding of long-term couples' relationship satisfaction and stability, within-person longitudinal data would also be of particular interest, e.g., changes in personality over the course of a relationship.

Moreover, future research may determine whether the effects varied among samples with just one partner of a relationship is included, i.e., non-dyadic data and samples with both partners are involved, i.e., dyadic data. Comparable results would provide practical benefits for the recruitment of study participants.

In addition, because the existing research have examined middle-aged and older couples only in long-term relationships, future research may also look at predictors of middle-aged and older couples' relationship satisfaction in short-term relationships, e.g., remarriages, cohabiting couples, or couples living apart together (LAT).

Further, more empirical studies to replicate previous cross-sectional findings or to look at further predictors of long-term couples' relationship satisfaction, e.g., attachment style, coping strategies are required. In addition, an empirical examination of our proposed model would be desirable and future studies should take into account couples' developmental stages when developing therapy and prevention programs for couples. When a couple therapist has been aware of a couple's particular developmental stage and its respective tasks and challenges, this may lead to more targeted interventions. Yet much has to be learnt about middle-aged and older couples in long-term relationships. Future research in this area would help meet this need to gain a more comprehensive picture of couples in more established relationships.

Table 1. *Studies examining predictors of long-term couples' relationship satisfaction*

Study	Sample	Independent variable(s)	Dependent variable(s)	Measurement of relationship satisfaction	Method
Acitelli & Antonucci, 1994	69 married couples (*M* age = 74.0; *SD* = 6.6; range 44 to 92; *M* marriage = 41.2)	Perceptions of marital support	Marital satisfaction	General marital satisfaction questions	Face-to-face interview Cross-sectional data
Baas & Schmitt, 2004	99 married couples (men's *M* age = 69.9, *SD* = 5.7, range 60 to 84; women's *M* age = 67.0, *SD* = 5.8, range 57 to 84; *M* marriage = 42.7)	Income distribution	Relationship satisfaction	Relationship Satisfaction Questionnaire (PFB; Hahlweg, 1979, 1996)	Explorative study Questionnaires Cross-sectional data
Be et al., 2013	1,385 married couples (men's *M* age at T1 = 65.7, *SD* = 7.9; women's *M* age at T1 = 63.2, *SD* = 7.4)	Life satisfaction	Marital adjustment	Three positive items and three negative items	Questionnaires Longitudinal data
Bethea, 2002	*Treatment group:* 15 married couples (*M* age = 57.0; *SD* = 7.0; range 44 to 79; *M* marriage = 32.8); *Control group:* 34 married couples (*M* age = 57; *SD* = 8.6; range 43 to 85; *M* marriage = 32.3)	Presence of an aging parent at home	Dyadic adjustment	Revised Dyadic Adjustment Scale (RDAS; Busby et al., 1995)	Quasi-experimental retrospective design Questionnaires Cross-sectional data
Bulanda, 2011	7,372 respondents and their partners (*M* age = just under 56; range 51 to 61; *M* marriage = 30.5)	Demographics, childrearing, care giving, health	Marital quality (marital happiness, marital interaction)	Single item question for marital happiness and two-items question for marital interaction	Questionnaires Cross-sectional data
Claxton et al., 2011	125 married couples (*M* age = 59.2; *SD* = 6.5; range 50 to 82; *M* marriage = 33.83)	Big Five personality traits (NEO-FFI; Costa & McCrae, 1992a)	Marital satisfaction	Dyadic Adjustment Scale (DAS; Spanier, 1976)	Questionnaires Cross-sectional data

(Appendix continues)

Appendix *(continued)*

Study	Sample	Independent variable(s)	Dependent variable(s)	Measurement of relationship satisfaction	Method
Clements & Swensen, 2000	72 married couples (men's *M* age = 69.2, *SD* = 8.2; women's *M* age = 66.7, *SD* = 8.2; range 50 to 88; *M* marriage = 42.7)	Ego development, commitment, length of marriage, church attendance, and sex of subject	Marital quality (marriage problems, expression of love, dyadic adjustment)	Scale of Feelings and Behavior of Love (Swensen et al., 1992a), Scale of Marriage Problems (Swensen et al., 1992b), Marriage Problems Scale-50+ (Clements & Swensen, 1999), Dyadic Adjustment Scale (DAS; Spanier, 1976)	Questionnaires, structured interview Cross-sectional data
Davey & Szinovacz, 2004	407 couples for wives' retirement and 550 couples for husbands' retirement (men's *M* age = 63.0; women's *M* age = 58.0-59.0; range 50 to 70)	Retirement	Marital quality (marital solidarity and conflict)	4 items for marital solidarity (marital happiness, divorce potential, time together, frequency of calm discussions) and 3 items for marital conflict (frequency, house-hold tasks, spending time together)	Questionnaires Longitudinal data
Finkel & Hansen, 1992	31 married couples (men's *M* age = 66.2; women's *M* age = 64.3; range 55 to 77; *M* marriage = 41.7)	Various life span experiences (e.g., number of children, financial strains)	Current marital satisfaction, retrospective marital satisfaction	Kansas Marital Satisfaction Scale (KMS; Schumm et al., 1983)	Structured interview, questionnaires Cross-sectional data
Harper et al., 2000	236 married couples (men's *M* age = 63.8, range 61 to 79; women's *M* age = 61.0, range 55 to 76; *M* marriage = 34.5)	Daily hassles, intimacy	Marital quality	Kansas Marital Satisfaction Scale (KMS; Schumm et al., 1983)	Questionnaires Cross-sectional data
Henry et al., 2007	98 older couples (men's M age = 64.2, SD = 3.7, range 55 to 74; women's M age = 62.3, SD = 4.2, range 51 to 71; M marriage = 37.4)	Perceptions of positive and negative behavior; observed interpersonal behavior	Marital satisfaction	Marital Adjustment Test (MAT; Locke & Wallace, 1959)	Questionnaires, laboratory experiment (conversational interactions) Cross-sectional data

(Appendix continues)

Appendix *(continued)*

Study	Sample	Independent variable(s)	Dependent variable(s)	Measurement of relationship satisfaction	Method
Kulik, 2002	116 married Israeli couples (range 58 to 85; *M* marriage = 41.0)	Marital equality (division of family roles, and gender role ideology)	Marital quality (marital burn-out and satisfaction)	4 items for marital satisfaction (communication, family roles division, decision-making patterns, emotional support from the spouse) and a 21-items questionnaire on marital burn-out (Pines, 1987)	Questionnaires Cross-sectional data
Landis et al., 2013	132 married couples (*M* age = 68 years, *SD* = 5.7; range 53 to 84; *M* marriage = 42.0, SD = 6.4)	Dyadic coping (congruency index, perceived reciprocity)	Relationship satisfaction	Marital Happiness Rating Scale (Terman, 1938) which corresponds to item 31 in the Relationship Satisfaction Questionnaire (PFB; Hahlweg, 1996)	Questionnaires Cross-sectional data
Lee et al., 2011	197 married couples (men's *M* age = 52.6, *SD* = 5.1; women's *M* age = 50.7, *SD* = 4.7; range 40 to 60)	Support exchanges with aging parents (total amount and disparities between spouses)	Marital satisfaction	Single item (overall quality of the relationship with the spouse)	Telephone interview Cross-sectional data
Levenson et al., 1993	82 middle-aged couples (men's *M* age = 44.3, *SD* = 2.9; women's *M* age = 43.3, *SD* = 2.9; range 40 to 50; *M* marriage = 21.1) and 74 older couples (men's *M* age = 63.6, *SD* = 2.9; women's *M* age = 62.2, *SD* = 3.2; range 60 to 70; *M* marriage = 40.3)	Age, gender, health	Marital satisfaction	Marital Adjustment Test (MAT; Locke & Wallace, 1959) and Marital Relationship Inventory (MRI; Burgess et al., 1971)	Telephone interview, questionnaires, laboratory experiment (conversational interactions) Cross-sectional

(Appendix continues)

Appendix *(continued)*

Study	Sample	Independent variable(s)	Dependent variable(s)	Measurement of relationship satisfaction	Method
O'Rourke et al., 2011	125 married couples (*M* age = 59.2; *SD* = 6.5; range 50 to 82; *M* marriage = 33.8)	Big Five personality traits (Revised NEO-FFI; Costa & McCrae, 1992a, and abridged NEO-FFI; Costa & McCrae, 1992b)	Marital satisfaction	Dyadic Adjustment Scale (DAS; Spanier, 1976)	Questionnaires Cross-sectional data
Peterson & Miller, 1980	32 couples (men's *M* age = 75.1, *SD* = 4.8; women's *M* age = 73.5, *SD* = 5.2; range 64 to 86; *M* marriage = 41.2)	Physical attractiveness	Marital adjustment	Marital Adjustment Test (MAT; Locke & Wallace, 1959)	Questionnaires, judges ratings Cross-sectional data
Petrican et al., 2011	40 married couples (men's *M* age = 72.1, *SD* = 5.9; women's *M* age = 69.1, *SD* = 5.6; range 50 to 88; *M* marriage = 42.7)	Gaze control, enmeshment	Relationship quality	(Six–item) Quality of Marriage Index (Norton, 1983)	Questionnaires, gaze control task, autobiographical task Cross-sectional data
Rosowsky et al., 2012	32 married couples (men's *M* age = 74.2, range 57 to 89; women's *M* age = 72.5, range 59 to 87; *M* marriage = 49.2)	Big Five personality traits (NEO-FFI; Costa & McCrae, 1992a) and compliance, aggression, and detachment (HCTI; Coolidge, 1999)	Marital satisfaction	Comprehensive Marital Satisfaction Scale (CMSS; Blum & Mehrabian, 1999)	Explorative study Questionnaires Cross-sectional data
Shiota & Levenson, 2007	27 middle-aged couples (men's *M* age = 44.1, *SD* = 3.1; women's *M* age = 43.9, *SD* = 2.9; range 40 to 50; *M* marriage = 21.4) and 40 older couples (men's *M* age = 63.1, *SD* = 2.7; women's *M* age = 62.0, *SD* = 2.9; range 60 to 70; *M* marriage = 39.6)	Similarity in Big Five personality factors (as measured through Adjective Check List (ACL; Gough & Heilbrun, 1980)	Initial levels and 12-year trajectories of marital satisfaction	Marital Adjustment Test (MAT; Locke & Wallace, 1959) and Marital Relationship Inventory (MRI; Burgess et al., 1971)	Questionnaires laboratory interactions (results are not part of the study) Longitudinal data

(Appendix continues)

Appendix *(continued)*

Study	Sample	Independent variable(s)	Dependent variable(s)	Measurement of relationship satisfaction	Method
Szinovacz, 1996	672 couples (men's age range 55 to 72; women's age range 50 to 72)	Couples' employment/retirement status, gender-role attitudes, time spent with household work, length of retirement	Marital quality (marital happiness, conflicts, heated arguments, multiple marital problems)	Single-item question for each indicator of marital quality	Questionnaires Cross-sectional data
Trudel et al., 2013	394 couples (men's *M* age = 75.9, *SD* = 5.1; women's *M* age = 73.3, *SD* = 5.9; *M* cohabitation = 46.2, *SD* = 11.9)	Psychological distress, Sexual functioning	Marital functioning	Dyadic Adjustment Scale (DAS; Spanier, 1976)	Face-to-face interview Longitudinal data
R. Walker et al., 2013	40 married couples (*M* age = 76.14; *SD* = 7.2; range = 65 to 92 years; *M* marriage = 52.8, *SD* = 9.7)	Satisfaction with different social network types, psychological well-being	Marital satisfaction	Marital Satisfaction Questionnaire for Older Persons (MSQFOP; Haynes, et al., 1992)	Questionnaires Semi-structured interviews Cross-sectional data
Yeh et al., 2006	283 married couples (age range 40 to 50; *M* marriage = 30.0)	Sexual satisfaction	Marital quality	Two global items (Fincham & Bradbury, 1987)	Questionnaires Longitudinal data

Note. HCTI = Horney-Coolidge Tridimensional Inventory; NEO FFI = NEO Five-Factor Inventory.

2.6 Research questions

The existing research on intimate relationships has focused predominantly on relatively young couples in the early stages of their relationship. Very little research has examined couples in long-term relationships. This thesis seeks to address this gap in the literature by examining data of middle-aged and older couples in long-term relationships. In reviewing the current state of literature on factors likely to affect long-term couples' relationship satisfaction, multiple prominent conceptual and methodological limitations were identified, and some open scientific questions have arisen. The two empirical studies presented in this thesis are strongly interrelated, having in common that the main focus lies on the construct of intimate relationship satisfaction, but using different approaches: the measure of relationship satisfaction and the pathways to promote and maintain it.

In the first study, a critical look has been taken at the Relationship Assessment Scale (RAS; Hendrick, 1988) – one of the most frequently used self-report measures of relationship satisfaction. We examined to which extent the seven RAS items measure two independent aspects of relationship quality: global relationship satisfaction versus the frequency of relationship problems. The second study addresses the question whether or not there are different pathways to achieve relationship satisfaction among men versus women and young versus old couples. Concretely, we examined potential gender and age differences or similarities in the relational patterns of perceptions of partners' supportive dyadic coping, commitment, and sexual satisfaction with relationship satisfaction.

This thesis is guided by a lifespan developmental perspective, highlighting the relevance of examining long-term relationships to better understand the developmental course of relationship satisfaction. With this thesis, issues are addressed that have attracted increased attention by gerontologists and psychologists as the number of middle-aged and older couples in modern societies continues to rise.

3 Relationship Assessment Scale: A Tale of two Scales[2]

3.1 Introduction

The Relationship Assessment Scale (RAS; Hendrick, 1988) is one of the most frequently used self-report measures of global relationship satisfaction (Graham, Diebels, & Barnow, 2011). Based on numerous studies using the RAS finding less than perfect correlations with other existing measures of relationship satisfaction (Graham et al., 2011), the scale may contain valuable information for relationship research that goes beyond providing information on relationship satisfaction. On one hand, it may be that a low frequency of relationship problems is an essential part of high relationship satisfaction. In this case, one would expect a positive correlation of the six relationship satisfaction items of the RAS with independently assessed global relationship satisfaction measures, and an equally high negative correlation between the frequency of relationship problems determined by the RAS and the same global relationship satisfaction measure. On the other hand, it may be that the information provided through measuring relationship satisfaction and the information provided through measuring relationship problems frequency is, at least partially, independent. In this case, the correlation between relationship problems frequency and an external global relationship satisfaction measure should be negative, but smaller than in the first case. Concretely, we would expect that the correlations between both RAS(1-6) and the Couples Satisfaction Index (CSI; Funk & Rogge, 2007), and RAS-7 and the CSI should differ substantially in direction and effect size.

Thus, the aim of this study was to examine to which degree the seven RAS items can be used to measure two independent aspects of relationship quality, i.e., relationship satisfaction and the frequency of relationship problems.

[2] A similar version of this chapter is submitted for publication (Subiaz, T., & Martin, M., submitted)

3.2 Method

Participants

A total of 368 couples were recruited by means of advertisements in newspapers and magazines as part of an ongoing longitudinal study on dyadic development across the lifespan. Couples were required to have been in a stable relationship of at least one year's duration. The mean age for men was 49.3 years (*SD* = 18.3; age range = 20-82 years) and 47.2 years (*SD* = 18.5; age range = 19-80 years) for women. Couples' mean relationship duration was 20.9 years (*SD* = 18.0; duration range = 1-60 years). The majority of couples was married (58.2% of men; 57.9% of women) and most had children (65.2% of the men; 67.9% of the women). Regarding the men, 34.8% completed vocational training, 12.5% completed high school, and 49.2% graduated from college or university. With regard to women, 40.2% completed vocational training, 21.2% completed high school, and 31.5% graduated from college or university. On average, men and women reported high levels of relationship satisfaction measured with the six relationship satisfaction items of the RAS, with mean scores of 4.45 (*SD* = .47) for men, and 4.40 (*SD* = .49) for women, indicating relatively satisfied couples. The sample is typical for nonclinical studies with couples (e.g., Bodenmann, Meuwly, & Kayser, 2011; Ledermann, Bodenmann, Rudaz, & Bradbury, 2010).

Measures

Relationship Satisfaction

A content analysis of the RAS items revealed that six of the seven items (see Appendix) measure global or specific aspects of relationship satisfaction and one RAS item measures the frequency of relationship problems. Based on this analysis, we assumed that RAS items 1 to 6 (subsequently used as the new generated scale RAS(1-6)) are assessments of relationship satisfaction, while RAS item 7 (subsequently used as RAS-7) measures the frequency of relationship problems, and that both are independent.

In this study, the German version (Sander & Böcker, 1993) of the RAS was used. One item measures global satisfaction (RAS-2: “In general, how satisfied are you with your relationship?”), and five items address thoughts and feelings regarding the relationship and the partner (RAS-1: “How well does your partner meet your needs?”, RAS-3: “How good is your relationship compared to most?”, RAS-4: “How often do you wish you had not gotten into this relationship?”, RAS-5: “To what extent has your relationship met your original expectations?”, RAS-6: “How much do you love your partner?”). The items are rated on a 5-point scale with 1 = “very unsatisfied”, 2 = “unsatisfied”, 3 = “average”, 4 = “pretty satisfied”, and 5 = “extremely satisfied”. We used the mean score with a range from 1 to 5. Item 4 is reverse scored and needed to be recoded so that higher scores indicated higher levels of relationship satisfaction. The item distributions and that of the scale’s mean scores in the sample are skewed towards the positive end. In this sample, Cronbach’s alpha for RAS(1-6) for women was .83, and .85 for men.

Frequency of Relationship Problems

One item of the Relationship Assessment Scale (RAS; Hendrick, 1988) addresses the frequency of relationship problems (RAS-7: “How many problems are there in your relationship?”) and is rated on a 5-point scale with 1 = “very few”, 2 = “few”, 3 = “average”, 4 = “many”, and 5 = “very many”. We used the mean score with a range from 1 to 5, with higher scores indicating more relationship problems. Given that the test-retest reliability of the complete RAS scale score has been reported to be r = .85 (Hendrick, Dicke, & Hendrick, 1998), we assume similarly high test-retest reliability for RAS-7.

Correlated Measures

Couples Satisfaction Index

The four-item Couples Satisfaction Index (CSI[4]; Funk & Rogge, 2007) is a shorter version of the 32-item CSI measuring relationship satisfaction. Funk and Rogge (2007) stated

that CSI scores are highly associated with other measures of relationship satisfaction. In the original version, one global item is rated on a 7-point scale, whereas the other items use a 6-point scale, all with different response formats. For our analysis, we used a 6-point scale for all four items. In the present sample, Cronbach's alpha for the CSI was .83 for women, and .90 for men.

Multi-Dimensional Stress Questionnaire for Couples

The Multi-Dimensional Stress Questionnaire for Couples (MDS-P [Multi-dimensionaler Stressfragebogen für Paare]; Bodenmann, Schär, & Gmelch, 2008) consists of 36 items that are rated on a 4-point scale (ranging from 1 = "not at all stressful" to 4 = "very stressful") assessing couples' perceived stress inside and outside of the relationship. Bodenmann (2000) showed that both, stress originating inside of the relationship (e.g., jealousy) and microstress (e.g., daily stress) can have detrimental effects on relationship satisfaction. We used the daily relationship stress subscale for this article. In the present sample, Cronbach's alpha for the MDS-P was .84 for women, and .83 for men.

Dyadic Coping Inventory

The Dyadic Coping Inventory (DCI; Bodenmann, 2008) is a 37-item measure of the way couples cope with stress. The DCI assesses perceptions of both one's own dyadic coping behaviors and the partner's dyadic coping behaviors. Bodenmann and Cina (2006) demonstrated that dyadic coping is highly predictive for relationship functioning. Items are rated on a 5-point scale (ranging from 1 = "never" to 5 = "very often"). The DCI consists of nine subscales. For the purpose of this article, we used the common dyadic coping scale ("what do we as a couple do in times of stress?"). In the present sample, Cronbach's alpha for the DCI was .76 for women, and .73 for men.

Data Analyses

Prior to testing our hypothesis, a paired-samples *t*-test was conducted to determine gender differences in levels of satisfaction. The test revealed significant gender differences in reported relationship satisfaction measured with the six relationship satisfaction items of the RAS in the sense that men (M = 4.45, SD = .47) reported significantly higher levels of relationship satisfaction than women (M = 4.40, SD = .49, $t(367) = -2.21$, $p < .05$). For this reason, we conducted the subsequent analyses separately for men and women.

To test our hypothesis, two types of analyses were conducted: (1) group-split analyses, and (2) a correlation analysis. These analyses were performed with IBM SPSS Statistics 20. In the group-split analyses, we assigned men and women to two groups depending on the split variable considered: either satisfied or dissatisfied with the relationship versus either few or several relationship problems. A look at the relevant literature revealed no clear RAS cut-off score to distinguish between satisfied and dissatisfied couples (Vaughn & Baier, 1999). In order to distinguish satisfied from dissatisfied partners or those with few or several relationship problems, we defined the criteria to form these two groups as follows: When considering RAS(1-6) as the split variable, intimate partners who have reached a mean score of "4" or higher are classified as satisfied partners, while intimate partners who have obtained a mean score below "4" are considered to be dissatisfied partners. When considering RAS-7 as the split variable, a mean score of "2" or lower indicated intimate partners with few relationship problems, and a mean score higher than "2" indicated partners with several relationship problems. In the correlation analysis, Pearson's correlation coefficients were computed between men's and women's RAS scores (depending on the item(s) considered) and other scales, usually measured in context of intimate relationships.

3.3 Results

Descriptive Results

Means and standard deviations of the RAS items, item intercorrelations, and item correlations with other scales are presented in Table 2 for men, and Table 3 for women.

Group-split analyses

Results indicated different group splits when splitting the sample into satisfied versus dissatisfied intimate partners, compared to group splits based on partners with few versus several relationship problems. When considering RAS(1-6) as the group-split variable, the percentage of men as well as women who reported high relationship satisfaction (a mean score equal or above "4") is much higher compared to the percentage of men and women who rated their intimate relationship as less satisfied (a mean score below "4"). The percentage of satisfied partners was 86.7% for women, and 89.3% for men. Thus, regardless of the participants' gender, the vast majority of men and women in our sample were highly satisfied with their relationship.

A different result emerged when considering RAS-7 as the split variable. The percentage of both men and women who reported few problems in their relationship (a mean score equal or below "2") is almost twice as high as the percentage of couples who reported several relationship problems (a mean score above "2"). Among women, 68% reported few problems in their relationship, but 32% reported several relationship problems. Regarding the men, 70.4% reported few relationship problems, and 29.6% reported several relationship problems.

Correlation Analysis

Pearson's correlation coefficients between RAS items (depending on the item(s) considered) and other selected scales, usually measured in the context of intimate relationships (e.g., dyadic coping), are presented in Table 2 for men, and Table 3 for women.

Suggesting that RAS(1-6) and the CSI assess the same theoretical construct of global relationship satisfaction, they should correlate highly with each other. Results indicated that there was a significant positive association between RAS(1-6) and the CSI (men: r = .87; women: r = .84, p < .01 for both). In contrast, given that RAS-7 measures the frequency of relationship problems, the association between both RAS-7 and RAS(1-6), and RAS-7 and the CSI should be negative and smaller. Results showed that for men and women, RAS-7 was negatively related to RAS(1-6) (men: r = -.59; women: r = -.56, p < .01 for both), as well as the CSI (men: r = -.55; women: r = -.53, p < .01 for both). Finally, for men and women, the associations between both RAS(1-6) and the CSI, as well as the RAS-7 and the CSI differed significantly (p < .001). Given that the two correlations differed significantly in direction and effect size, this suggests that the seven RAS items can be used to measure both relationship satisfaction and relationship problems frequency.

Table 2. *Psychometric properties of the RAS for men (N = 368)*

Scale	*M*	*SD*	Range	1	2	3	4	5	6	7	8
Item intercorrelations											
1. RAS-1	3.97	.65	2-5	-							
2. RAS-2	4.52	.65	2-5	.48	-						
3. RAS-3	4.47	.69	2-5	.45	.63	-					
4. RAS-4	4.63	.62	2-5	.35	.51	.50	-				
5. RAS-5	4.31	.65	2-5	.41	.61	.54	.48	-			
6. RAS-6	4.79	.48	2-5	.33	.57	.45	.50	.40	-		
7. RAS(1-6)	4.45	.47	1-5	.68	.84	.80	.74	.77	.69	-	-.59
8. RAS-7	2.07	.87	1-5	-.46	-.53	-.51	-.37	-.47	-.31	-.59	-
Correlations with other scales for all men											
CSI				.55	.83	.69	.58	.67	.60	.87	-.55
MDS-P				-.48	-.62	-.53	-.49	-.49	-.40	-.67	.56
GDC				.31	.44	.39	.22	.41	.26	.46	-.36
Correlations with other scales either for satisfied or dissatisfied men											
				S D	S D	S D	S D	S D	S D	S D	S D
CSI				.26** .29*	.73** .77**	.55** .39*	.34** .49*	.52** .22	.52** .59	.76** .81**	-.29** -.33**
MDS-P				-.12* -.36**	-.53** .05	-.37** -.44**	-.29** .10	-.36** -.35*	-.39** -.50	-.54** -.52**	.29** .33**
GDC				.14* .03	.35** .19	.22** .53**	.15** -.05	.28** .32	.23** .77*	.36** .38*	-.26** -.05

Note. All item intercorrelations and correlations with other scales presented are significant at the $p < .01$ level. RAS(1-6) = Scale generated with RAS items 1 to 6; CSI = Couples Satisfaction Index; MDS-P = Multi-Dimensional Stress Questionnaire for Couples [Multi-dimensionaler Stressfragebogen für Paare] – Acute dyadic stress subscale; DCI = Dyadic Coping Inventory – Common dyadic coping subscale.

Table 3. *Psychometric properties of the RAS for women (N = 368)*

Scale	*M*	*SD*	Range	1	2	3	4	5	6	7	8
Item intercorrelations											
1. RAS-1	3.94	.66	1-5								
2. RAS-2	4.49	.70	1-5	.48	-						
3. RAS-3	4.46	.73	2-5	.49	.61	-					
4. RAS-4	4.50	.67	2-5	.34	.47	.48	-				
5. RAS-5	4.17	.76	1-5	.43	.43	.49	.47	-			
6. RAS-6	4.82	.44	3-5	.36	.48	.53	.47	.43	-		
7. RAS(1-6)	4.40	.49	1-5	.70	.78	.81	.72	.75	.69	-	-.56
8. RAS-7	2.09	.87	1-5	-.38	-.45	-.47	-.40	-.44	-.29	-.56	-
Correlations with other scales for all women											
CSI				.59	.75	.67	.57	.55	.62	.84	-.53
MDS-P				-.47	-.50	-.48	-.45	-.41	-.32	-.60	.59
DCI				.46	.45	.39	.31	.44	.38	.54	-.38

	Correlations with other scales either for satisfied or dissatisfied women															
	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D
CSI	.23**	.30*	.67**	-.29	.48**	.41**	.36**	-.23	.40**	-.08	.57**	-	.66**	-.75**	-.32**	-.17
MDS-P	-.17**	-.21	-.41**	.24	-.26**	-.51**	-.24**	-.08	-.30**	-.06	-.31**	-	-.36**	-.48**	.33**	.26**
DCI	.24**	.26*	.33**	-.31	.23**	.36*	.22**	-.21	.34**	.30*	.36**	-	.41**	-.34*	-.22**	-.12

Note. All item intercorrelations and correlations with other scales presented are significant at the $p < .01$ level. RAS(1-6) = Scale generated with RAS items 1 to 6; CSI = Couples Satisfaction Index; MDS-P = Multi-Dimensional Stress Questionnaire for Couples [Multi-dimensionaler Stressfragebogen für Paare] – Acute dyadic stress subscale; DCI = Dyadic Coping Inventory – Common dyadic coping subscale.

3.4 Discussion

The aim of this study was to examine to which extent the seven items of the RAS measure two independent aspects of relationship quality, i.e., relationship satisfaction versus the frequency of relationship problems. Based on a content analysis of the seven RAS items, we assumed that RAS items 1 to 6 are assessments of relationship satisfaction, while RAS-7 measures relationship problems frequency, and that both are independent. The sample of this study consisted of 368 couples with a wide age range (19-82 years) representing a typical sample of non-clinical relationship studies (e.g., Bodenmann et al., 2011; Ledermann et al., 2010).

In order to test our hypothesis, two different types of analyses were conducted. First, group-split analyses revealed different results depending on the specific split variable considered. More precisely, when considering RAS(1-6) as the split variable, results showed that regardless of the participants' gender, the vast majority of the sample was highly satisfied with their intimate relationship. However, when using RAS-7 as the split variable, results indicated that about two thirds of both men and women reported few relationship problems, and nearly one third of them nevertheless perceived several problems in their relationship. Given these findings, we suggest that RAS-7 measures a different aspect of relationship quality than the other six RAS items.

Second, further support for our hypothesis comes from our correlation analysis. Concretely, correlation analysis with the CSI as external validation criterion showed a positive correlation between RAS(1-6) and the CSI, another self-report measure of global relationship satisfaction, and a negative correlation between RAS-7 and the CSI. Note that these two associations differed significantly for both men and women. Assuming that all seven items of the RAS measure the same construct of relationship satisfaction, the two correlations should have equally high effect sizes. From these results, we conclude that

RAS(1-6) are the items or rather the scale that best represent relationship satisfaction, while RAS-7 represents the frequency of relationship problems.

Taken together, results from the two analyses provide support that RAS(1-6) reliably measures relationship satisfaction and RAS-7 reliably measures the frequency of relationship problems, thus measuring different relevant aspects of intimate relationships.

Regarding these findings some limitations should be considered. First, although self-report measures are predominantly used to assess relationship satisfaction (Graham et al., 2011), this approach indicates some problems. Due to couples' positive evaluative bias regarding items concerning their relationship, it might be that they tend to rate any item as positive for the purpose of maintaining consistency in self-presentation (Fincham & Bradbury, 1987). Second, relationship satisfaction scores measured with the six satisfaction items of the RAS in our sample were negatively skewed thus leading to reduced amount of variability in satisfaction levels. Third, due to the absence of a clear RAS cut-off score between satisfied and dissatisfied couples (Vaughn & Baier, 1999), we have defined our own criteria for this distinction. In this study, participants who have reached a satisfaction mean score of "4" or higher (on a five-point scale) are considered as satisfied intimate partners. We assumed no qualitative differences between the values of "4" (= pretty satisfied) and "5" (= extremely satisfied). However, by limiting this range, the resulting variance was quite small. However, it might be that there exist qualitative differences between participants who reported a "4" and those who reported a "5" on the relationship satisfaction scale measured with the six relationship satisfaction items of the RAS.

The RAS is a widely accepted and frequently used measure of global relationship satisfaction (Graham et al., 2011). Its brevity and lack of item overlap with other variables of interest (e.g., communication), as well as its applicability to different types of close relationships (e.g., married couples, dating couples) makes it an important instrument for relationship researchers (Hendrick et al., 1998; Vaughn & Baier, 1999). Overall, the findings

of this study suggest two noteworthy conclusions: First, using RAS(1-6) is a clearer measure of relationship satisfaction compared to RAS(1-7). Second, the seven items of the RAS can be used to reliably and validly measure both, global relationship satisfaction and the frequency of relationship problems.

4 Relationship satisfaction in men versus women, and young versus old couples: Different pathways to the same outcome?

4.1 Introduction

Regardless of couples' age, they might all have the same goal: The maintenance of a stable and satisfying relationship. However, in order to achieve this goal, couples have to deal with several stressors internal and external of the relationship that may represent a threat to the intimate relationship satisfaction (e.g., Cohan & Bradbury, 1997). In fact, in their review on the effects of stress on relationship satisfaction, Randall and Bodenmann (2009, p. 108) stated that "minor stresses originating outside the relationship and spilling over into marriage are particularly deleterious for close relationships as these stresses lead to mutual alienation and slowly decreasing relationship quality over time".

However, the qualities of stressors may vary by gender and age group. Previous work has shown that women are more likely than men to report stressful life events, particularly interpersonal stressors (Almeida & Kessler, 1998). Further, Almeida and Kessler (1998) showed that women and men do not differ regarding the frequency of exposure to distress days, but that women were more likely than men to experience high distress days. According to gender role perspectives, men and women have different sources of stress, whereby women were more likely to experience stress in terms of the intimate relationship, whereas men reported more stress regarding their work (Conger, Lorenz, Elder, Simons, & Ge, 1993). The authors suggest that it is the onset of distressing episodes that can explain the gender differences in daily distress (Almeida & Kessler, 1998).

As people age, physical and cognitive abilities decline (Schaie, 1996). Furthermore, higher chronological age is associated with increased mortality, need for care, and increased number of losses regarding personal relationships and social roles (Mayer & Baltes, 1996).

Furthermore, it seems plausible to assume that the more lifetime adversity, the higher global distress, functional impairment, PTS symptoms, and lower life satisfaction (Seery, Holman, & Silver, 2010). It is therefore plausible that the probability of the occurrence of adverse situations may be higher with increased age. Similarly, there is evidence that compared to young couples, old couples are more often confronted with daily hassles occurring because of concerns about the own and the partners' health (Bodenmann, 2000), demanding various coping resources from both partners.

The occurrence of adverse circumstances requires specific (available) resources or skills that have to be used selectively to overcome these threats toward couples' relationship satisfaction. The availability and the use of these skills also differ by gender and age. In a meta-analysis, Tamres, Janicki, and Helgeson (2002) showed that in times of stress, women are more likely than men to use both problem-focused and emotion-focused coping strategies. There is also evidence that when facing stress, the longer duration of intimate relationships and years of experiencing each other's support in old age lead to different strategies to cope with stress than would be expected from young couples. For example, old adults are more likely to use avoidant strategies (e.g., doing nothing) in terms of potential problems in their relationships and are less likely to use destructive strategies than young adults (Birditt & Fingerman, 2005; Birditt, Fingerman, & Almeida, 2005; Blanchard-Fields, 2007). In addition, compared to young adults, old adults report more positive feelings and fewer problems in their relationships (Fingerman & Charles, 2010).

As many couples struggle when facing stressful life events, this raises the question of what factors cause couples to be satisfied in their intimate relationships. A recent systematic review (cf. Subiaz & Martin, submitted) summarized factors likely to affect relationship satisfaction among middle-aged and older couples in long-term relationships. Findings suggest that perceptions of partners' supportive dyadic coping, commitment to the partner and the intimate relationship, and sexual satisfaction serve as relevant predictors of relationship

satisfaction (e.g., Bodenmann & Cina, 2006). There is evidence, that these factors also are important for relationship satisfaction in young couples.

Dyadic coping refers to an interpersonal process that involves both partners of a couple, whereby they respond supportively to the partner's stress communication, delegate tasks in stressful situations, or deal jointly with the stressor (Bodenmann, 1997, 2005). Acitelli and Antonucci (1994) indicated that all of the marital support variables (i.e., giving and receiving support, as well as perceived and actual reciprocity) were strongly related to wives' and husbands' marital satisfaction. Moreover, two other studies have showed that especially the perceptions of partners' supportive behavior were important for couples' relationship satisfaction (Landis, Peter-Wight, Martin, & Bodenmann, 2013; Wunderer & Schneewind, 2008).

Positive dyadic coping is significantly associated with relationship satisfaction, not only in young and middle-aged coupes, but also in old couples (Bodenmann, 2005). However, results showed age differences in the positive emotional common dyadic coping and the total score of the positive common dyadic coping, both with the lowest values in old couples, compared to young and middle-aged couples (Bodenmann & Widmer, 2000).

Dyadic coping is not the only factor that affects relationship satisfaction. There is evidence that commitment is an important determinant of relationship satisfaction and stability in both young and old couples. Relationship commitment is defined as the intention or desire to maintain one's intimate relationship (Rusbult, Martz, & Agnew, 1998). A main finding of Clements and Swensen's (2000) study of old couples was that commitment to the spouse and the intimate relationship was the strongest and most consistent predictor of old spouses' marital quality. In addition, Weishaus and Field (1988) found commitment to the partner to be a key factor of a successful marriage. Similarly, previous research indicated that higher commitment to the partner was associated with fewer marital problems (Swensen & Trahaug, 1985). Likewise, previous research has found a positive association between

commitment and relationship satisfaction in unmarried young adults (Lemieux & Hale, 1999). The authors found higher commitment scores in women than in men, suggesting that a committed and long-term relationship seems to be of greater importance for women than for men (Lemieux & Hale, 1999).

Another component that seems to be an important factor for couples' relationship satisfaction and stability is sexual satisfaction (e.g., Sprecher & Cate, 2004; Yeh, Lorenz, Wickrama, Conger, & Elder, 2006). Sprecher and Cate (2004, p. 236) defined it as "the degree to which an individual is satisfied or happy with the sexual aspect of his or her relationship." However, a decrease in sexual activity and sexual satisfaction was observed over the life span, possibly influenced by age-related physical changes and health problems (Call, Sprecher, & Schwartz, 1995). For young couples, in contrast, a typical challenge in the early stages of their relationships is the development of intimacy and attachment that may be reached through sexual interactions (Schneewind, Graf, & Gerhard, 1999). Furthermore, it was found that men attributed sexual satisfaction with the quantity of sexual interactions, whereas for women emotional intimacy was more important (Lodge & Umberson, 2012).

It is obvious and research has confirmed that gender and age differences exist across a variety of relationship domains. This seems plausible because age and relationship duration are mostly confounded, and this could reflect a cohort effect.

For example, compared to young couples, old couples belong to another cohort of individuals who were more likely to be married before age 25, to have or have had children, are in longer relationships, have lower education levels, and larger accumulated income differences. It is further plausible that there are different dyadic processes when forming a relationship in young age compared to dyadic processes helping to maintain a decade-old intimate relationship. In addition, to become married for women 50 years ago was something more different than for men. Consider the circumstances that would require women to marry to provide financial security, whereas this plays a much smaller role nowadays. Thus, one

could hypothesize that as resources, skills, demands, and relationship histories clearly differ between gender and age groups, that there will be differences in relationship satisfaction between men and women and young versus old couples. In fact, previous studies have shown a continuous decline of relationship satisfaction over the lifespan (Karney & Bradbury, 1997; VanLaningham, Johnson, & Amato, 2001). Accordingly, old couples should have lower relationship satisfaction levels than young couples. However, even in perfect random samples of couples, it is likely to recruit rather highly satisfied couples as most people in less satisfying relationships will not stay in these relationships and are likely to have separated or divorced. Therefore, an alternative hypothesis to test is (a) that young and old couples are equally satisfied with their relationships, but that (b) young versus old and (c) men versus women differ in the relational patterns between predictors and relationship satisfaction, and that some differences are more pronounced in women versus men.

4.2 Method

Participants

The sample of this study consisted of 122 young couples and 121 old couples who were recruited by means of advertisements in newspapers and magazines as part of an ongoing longitudinal study on dyadic development across the lifespan. Couples recruited for this study were required to have been in a stable relationship of at least one year's duration, and one partner of each couple must have been 20-35 years old (young couples) or 65-80 years old (old couples). A two years deviation in age above or below these ranges was tolerated for the other partner. With these criteria we reached two distinct age groups of couples. For 122 young couples, women's mean age was 26.22 years (*SD* = 4.57); men's mean age was 28.07 years (*SD* = 4.62). For 121 old couples, women's mean age was 70.10 years (*SD* = 4.72); men's mean age was 71.61 years (*SD* = 5.11). Relationship duration was longer for old couples (42.11 years; *SD* = 13.42) than for young couples (4.66 years;

SD = 3.53). A greater percentage of old couples were married, had children, and had lower educational levels compared to young couples. Across age groups, women and men reported high levels of relationship satisfaction, indicating relatively satisfied couples. See Table 4 for a complete description of partner and couple demographics by age group.

Table 4. *Partner and couples demographics*

	Young couples (*n* = 122)				Old couples (*n* = 121)			
	Women		Men		Women		Men	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Age	26.22	4.57	28.07	4.62	70.10	4.72	71.61	5.11
Relationship satisfaction[a]	4.36	.48	4.32	.48	4.31	.55	4.45	.52
Relationship duration (years)	4.66	3.53	4.62	3.48	42.11	13.42	42.93	12.78
Civil status (married)	24.6%		24.6%		91.8%		88.4%	
Children	19.7%		20.5%		89.3%		89.3%	
Education level								
Primary school	0%		0.8%		7.6%		3.3%	
Secondary school	3.3%		1.6%		6.7%		3.3%	
Vocational training	25.6%		31.1%		49.6%		38.8%	
High school	25.6%		23.8%		18.5%		8.3%	
College/University	45.5%		42.6%		17.6%		46.3%	

Note. [a] Scores could range from 1 (low satisfaction) to 5 (high satisfaction).

Measures

Relationship satisfaction

To assess intimate relationship satisfaction, we used the seven-item Relationship Assessment Scale (RAS; Hendrick, 1988; German translation by Sander & Böcker, 1993). The items are rated on a 5-point scale (ranging from 1 = “very unsatisfied” to 5 = “extremely satisfied”). Item 4 and 7 were recoded so that higher scores indicated higher levels of relationship satisfaction. In this sample, Cronbach’s alpha for young couples was .81 for women, and .82 for men. For old couples, Cronbach’s alpha was .89 for women, and .90 for men.

Dyadic coping

The Dyadic Coping Inventory (DCI; Bodenmann, 2008) consists of 37 items measuring how couples cope together with stress. The DCI assesses perceptions of both one's own dyadic coping behaviors and the partner's dyadic coping behaviors. Although the DCI consists of nine subscales, we used the partner's supportive dyadic coping scale ("what does my partner do when I am stressed?"). The five items are rated on a 5-point scale (ranging from 1 = "never" to 5 = "very often"). In the present sample, Cronbach's alpha for young couples was .74 for women, and .75 for men. For old couples, Cronbach's alpha was .87 for women, and .85 for men.

Commitment

The Investment Model Scale (Rusbult et al., 1998) was designed to measure four constructs, including commitment level, satisfaction level, quality of alternatives, and investment size. For this article, we used the seven commitment level items measuring global commitment to the partner and the relationship. In the original version, the items are rated on a 9-point scale (0 = "do not agree at all" to 8 = "agree completely"). For our analysis, we used a 7-point scale for the seven items (ranging from 1 = "do not agree at all" to 7 = "agree completely"). We recoded items 4 and 6 so that higher scores indicated higher levels of commitment. In the present sample, Cronbach's alpha for young couples was .80 for women, and .90 for men. For old couples, Cronbach's alpha was .49 for women, and .89 for men.

Sexual satisfaction

The Marital Satisfaction Inventory – Revised (Snyder, 1997; German translation by Klann, Hahlweg, Snyder, & Limbird, 2006) consists of 150 true-false items designed to assess the nature and extent of marital conflict along several dimensions of marital interaction (e.g., disagreement about finances, conflict over child rearing, and sexual dissatisfaction). In this article, we used eight items of the original 19-item scale measuring sexual dissatisfaction. For

our analysis, the eight items are rated on a 4-point scale (ranging from 1 = "do not agree at all" to 4 = "agree broadly"). We recoded the items so that higher scores indicated higher sexual satisfaction. In the present sample, Cronbach's alpha for young couples was .76 for women, and .85 for men. For old couples, Cronbach's alpha was .80 for women, and .87 for men.

Data analysis

We analyzed data by means of an extended version of the Actor-Partner Interdependence Model (APIM; Kenny & Cook, 1999; Kenny, Kashy, & Cook, 2006) using AMOS. The APIM allows for simultaneously estimating the effects for both partners in a couple, whereby the association between an individual's independent variable on their dependent variable is defined as an actor effect and the association on the partner's dependent variable is defined as a partner effect (Kenny & Cook, 1999; Kenny et al., 2006).

Using multi-group modeling, we tested in a first step for measurement invariance across age groups by restricting regression weights to be equal across young and old couples. In a next step, we tested for gender differences in actor and partner effects in separate APIMs for each age group within one model using model comparisons comparing the unconstrained model with a nested model assuming equal parameters on the respective paths. If equality constraints on regression weights did not significantly reduce model fit, these constraints were retained in the models. In a final step, we examined whether the regression paths predicting relationship satisfaction differed across the two age groups by comparing the separate APIMs for each age group (with the constraints found in the former analysis) and a model where the respective regression path was set to be equal across age groups.

For path models, we used common fit indices to evaluate the model fit: the chi-square difference test, the comparative fit index (CFI), and the root mean square error of approximation (RMSEA) (see Schermelleh-Engel, Moosbrugger, & Mueller, 2003). For

RMSEA, a value ≤ .05 is a close model fit, with .08 indicating adequate fit. For CFI, a value of .95 or greater indicates adequate model fit. In terms of multi-group modeling, a significant chi-square difference test indicated that the tested parameters were statistically different for women and men, or for age groups, respectively. Path models were estimated using maximum likelihood analysis.

4.3 Results

Preliminary analyses

To examine gender and age differences in the study variables, we employed a mixed-model ANOVA with dyad as the unit of analysis. Age group (young vs. old) was defined as the between-dyads factor and gender (women vs. men) as a repeated-measures factor to account for the interdependence of data from intimate partners.

Mixed-model ANOVA results

Relationship satisfaction. Results revealed no significant main effect of age group ($F(1, 241) = .02$, $p = .90$, partial $\eta^2 = .00$). However, there was a marginally significant main effect of gender ($F(1, 241) = 3.76$, $p = .054$, partial $\eta^2 = .02$) and a significant interaction effect between age group and gender ($F(1, 241) = 9.39$, $p = .002$, partial $\eta^2 = .04$). Follow-up paired-samples *t* test showed no significant gender differences in reported relationship satisfaction in young couples. However, among old couples, men reported significantly higher levels of relationship satisfaction than women ($t(120) = -3.61$, $p < .001$, $d = 0.27$).

Partner's supportive dyadic coping. The mixed-model ANOVA showed no significant main effect of age group, but a significant gender main effect ($F(1, 240) = 7.91$, $p = .005$, partial $\eta^2 = .03$), as well as an interaction between age group and gender, $F(1, 240) = 4.76$, $p = .030$, partial $\eta^2 = .02$. Follow-up paired-samples *t* test yielded that old women perceived their partners as significantly less supportive than vice versa ($t(119) = -3.42$, $p = .001$, $d = 0.34$).

Commitment. Results indicated that there was no significant gender main effect ($F(1, 241) = .62$, $p = .43$, partial $\eta^2 = .00$) nor interaction effect between age group and gender ($F(1, 241) = 1.42$, $p = .23$, partial $\eta^2 = .01$.). However, there was a significant main effect of age group ($F(1, 241) = 32.61$, $p < .001$, partial $\eta^2 = .02$), whereby old couples reported higher commitment to their partners than did young couples.

Sexual satisfaction. The mixed-model ANOVA only showed a significant age group main effect ($F(1, 236) = 14.48$, $p < .001$, partial $\eta^2 = .06$), whereby young couples experienced greater sexual satisfaction than old couples.

In sum, age differences were found in the sense that old couples reported higher levels of commitment and lower sexual satisfaction than young couples.

Intercorrelations, means, and standard deviations of all study variables are shown in Table 5 for both age groups. Intercorrelations among the predictor variables ranged from $r = .19$ to $r = .38$ in young couples and from $r = .18$ to $r = .47$ in old couples. This suggests a small degree of confounding between these measures. Across age groups, there was a positive (medium to large) correlation between partner's supportive dyadic coping, commitment, and sexual satisfaction and relationship satisfaction. In old couples, results showed that of all of the predictors partner's supportive dyadic coping correlated highest with relationship satisfaction (women: $r = .65$; men: $r = .66$, for both $p < .01$). Similarly, the highest correlation between partner's supportive dyadic coping and relationship satisfaction was also found among young men ($r = .56$, $p < .01$), whereas in young women, we found the highest correlation between commitment and relationship satisfaction ($r = .55$, $p < .01$).

Table 5. *Means, standard deviations, and intercorrelations for the study variables*

Measure	RS	COM	SDCP	SS	*M*	*SD*
Young couples (*n* = 122)						
RS	-	.55**	.48**	.27**	4.32	.48
COM	.46**	-	.19*	.13	6.39	.79
SDCP	.56**	.27**	-	.25**	3.80	.62
SS	.51**	.22*	.38**	-	3.14	.59
M	4.36	6.48	3.76	3.26		
SD	.48	.65	.71	.50		
Old couples (*n* = 121)						
RS	-	.43**	.65**	.54**	4.45	.52
COM	.61**	-	.17	.18*	6.81	.51
SDCP	.66**	.47**	-	.32**	3.78	.76
SS	.47**	.27**	.32**	-	2.94	.68
M	4.31	6.79	3.51	2.95		
SD	.55	.38	.85	.64		

Note. Intercorrelations for women are shown above the diagonal, and intercorrelations for men are shown below the diagonal. Means and standard deviations for women are shown in the vertical columns, and means and standard deviations for men are shown in the horizontal rows. RS = Relationship satisfaction; COM = Commitment; SDCP = Partner's supportive dyadic coping; SS = Sexual satisfaction.
* $p < .05$. ** $p < .01$.

Multi-group modeling

The full model with actor and partner effects for measures of partner's supportive dyadic coping, commitment, and sexual satisfaction was fully saturated, hence model fit was perfect (CFI = 1.0; RMSEA = .00). The fully saturated model is depicted in Figure 3. In a first step, we tested for measurement invariance across age groups by restricting regression weights to be equal across young and old couples. Multi-group analysis showed that the model with equality constraints on regression weights across young and old couples did not yield a good model fit, $\chi^2 = 63.80$, $df = 13$, $p = .00$, CFI = .922, RMSEA = .127. Therefore, we next tested for gender differences in actor and partner effects in separate APIMs for each age group by restricting regression weights to be equal across partners. We started with a just-identified model with $\chi^2 (0) = 0$, that served as the default model against which we tested other more parsimonious models.

Table 7 provides an overview of these different models that have been tested to examine gender differences in each age group. For both young and old couples, the final model fit the data well, χ^2 = 6.553, *df* = 5, *p* = .256, CFI = .994, RMSEA = .051, and χ^2 = 3.115, *df* = 4, *p* = .539, CFI = 1.0, RMSEA = .00, respectively. Finally, we tested for age differences by comparing these two constrained models. Model comparison of the various models with constraints revealed a final model, which fit the data well, χ^2 = 17.85, *df* = 16, *p* = .333, CFI = .997, RMSEA = .022. The R^2 values for the structural equations indicated that the final model accounted for 56% of the variance in young women's relationship satisfaction, 48% of the variance in young men's relationship satisfaction, 61% of the variance in old women's relationship satisfaction and 70% in old men's relationship satisfaction. The standardized estimates for actor and partner effects of the predictor variables on relationship satisfaction in both age groups are presented in Table 6.

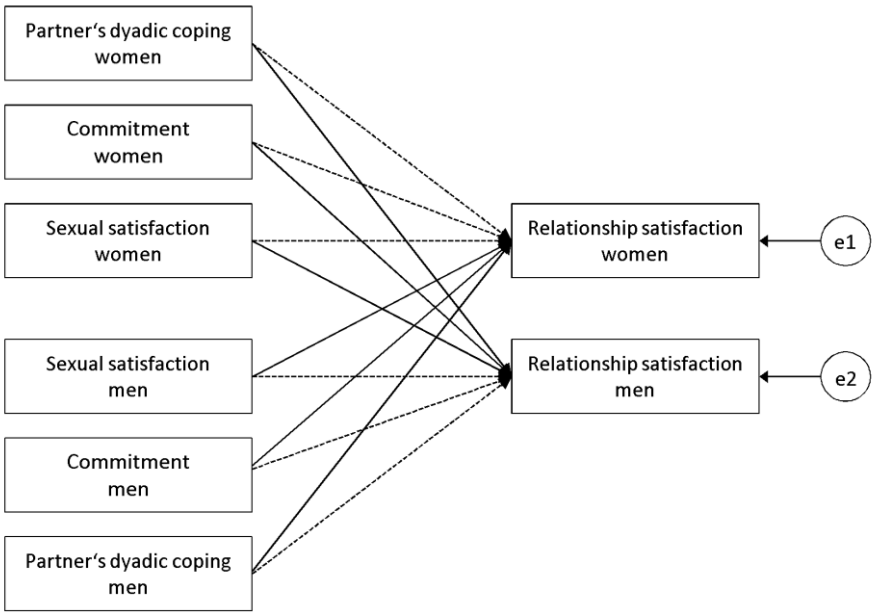

Figure 3. Actor-Partner Interdependence Model with partner's supportive dyadic coping, commitment and sexual satisfaction as predictors, and relationship satisfaction as outcome. For reasons of simplicity, all covariances are omitted; all predictors are allowed to covary as are the two residual variables.

Association of partner's supportive dyadic coping with relationship satisfaction

Regarding partner's supportive dyadic coping, equality testing comparing actor and partner effects across partners showed that the model with equal model parameters across partners yield a good model fit in both young couples (χ^2 = 1.766, *df* = 2, CFI = 1.0, RMSEA = .00) and old couples (χ^2 = .484, *df* = 2, CFI = 1.0, RMSEA = .00). Further, equality testing comparing actor and partner effects across age groups revealed that the model with equal model parameters across age groups yield a good model fit. Therefore, all constraints were retained. As can be seen in Table 6, all paths were highly significant, whereby women's and men's perceptions of partners' supportive dyadic coping was positively associated with both their own and their partners' relationship satisfaction. In sum, partner's supportive dyadic coping seems to affect the own and the partners' relationship satisfaction equally across the age groups.

Association of commitment with relationship satisfaction

In terms of commitment, equality testing comparing actor and partner effects across partners showed that the model with equal model parameters across partners only yield a good model fit in old couples (χ^2 = 3.972, *df* = 4, CFI = 1.0, RMSEA = .00). In young couples, however, only the model with equal partner effects across partners showed a good model fit (χ^2 = 2.967, *df* = 3, CFI = 1.0, RMSEA = .00). Furthermore, equality testing comparing actor and partner effects across age groups showed that equality constraints on women's regression weights yield a good model fit, but equality constraints on men's regression weights significantly reduced model fit, hence the latter constraints were rejected. Further, as seen in Table 6, all actor effects were significant, whereby women's and men's commitment was positively associated with their own relationship satisfaction. Taken together, for both partners in old couples and young women, the actor effects of commitment on relationship satisfaction were the same. However, we found the lowest effect of commitment on relationship satisfaction in young men.

Association of sexual satisfaction with relationship satisfaction

In terms of sexual satisfaction, equality testing comparing actor and partner effects across partners showed that the model with equal model parameters across partners only yield a good model fit in young couples (χ^2 = 6.553, *df* = 5, CFI = .994, RMSEA = .051). In old couples, however, equality constraints on actor and partner effects significantly reduced model fit, so these constraints were rejected. In addition, equality testing comparing actor and partner effects across age groups showed that equality constraints on women's regression weights significantly reduced model fit, but equality constraints on men's regression weights yield a good model fit. As seen in Table 6, all actor paths were significant, whereby women's and men's sexual satisfaction was positively related to their own relationship satisfaction. Further, we also found evidence for a partner effect in old couples, whereby women's sexual satisfaction was positively related to their partners' relationship satisfaction (β = .19, $p < .001$). In sum, findings indicated that the impact of sexual satisfaction on relationship satisfaction was equal for both young couples and old men. However, the impact of sexual satisfaction on relationship satisfaction was highest among old women.

Table 6. *Standardized estimates and significant levels for final model*

	Relationship satisfaction						
	Young couples (*n* = 122)		Gender differences	Old couples (*n* = 121)		Gender differences	Age differences
Estimates	Women	Men		Women	Men		
Actor effects							
Partner's dyadic coping	.35***	.33***	No	.38***	.34***	No	No
Commitment	.43***	.27***	Yes	.22***	.30***	No	Yes
Sexual satisfaction	.13***	.16***	No	.33***	.16***	Yes	Yes
Partner effects							
Partner's dyadic coping	.18***	.22***	No	.20***	.22***	No	No
Commitment	.06	.05	No	.03	.03	No	No
Sexual satisfaction	-.01	-.01	No	-.01	.19***	Yes	Yes

Note. $\chi^2 = 17.85$, $df = 16$, $p = .333$, CFI = .997, RMSEA = .022.

*** $p < .001$.

Table 7. *Goodness of fit coefficients for different restricted models for young and old couples*

		Model fit					R^2		Increment in R^2	
	Model	χ^2	*df*	CFI	RMSEA	Adequate fit	RS♀	RS♂	RS♀	RS♂
Young couples[a] (*n* = 122)										
Partner's dyadic coping	1	1.766	2	1.000	0.000	Yes	0.37	0.37		
Commitment	2	2.967	3	1.000	0.000	Yes	0.54	0.43	0.17	0.06
Sexual satisfaction	3	6.553	5	0.994	0.051	Yes	0.55	0.48	0.01	0.05
Old couples[b] (*n* = 121)										
Partner's dyadic coping	1	.484	2	1.000	0.000	Yes	0.50	0.49		
Commitment	2	3.972	4	1.000	0.000	Yes	0.55	0.64	0.05	0.15
Sexual satisfaction	3	3.115	4	1.000	0.000	Yes	0.63	0.72	0.08	0.08

Note. [a] Restricted models for young couples: Model 1 = actor and partner effects of partner's dyadic coping constrained to be equal across partners; Model 2 = partner effects of commitment constrained to be equal across partners; Model 3 = actor and partner effects of sexual satisfaction constrained to be equal across partners. [b] Restricted models for old couples: Model 1 = actor and partner effects of partner's dyadic coping constrained to be equal across partners; Model 2 = actor and partner effects of commitment constrained to be equal across partners; Model 3 = no constraints on actor and partner effects.

4.4 Discussion

The aim of this study was to examine whether and in what ways there are gender and age differences or similarities in the associations of partner's supportive dyadic coping, commitment, and sexual satisfaction with relationship satisfaction in a sample of 122 young and 121 old couples who report equally high levels of relationship satisfaction.

First of all, we verified that there were no significant age differences between young and old couples in reported relationship satisfaction. Despite the finding that relationship satisfaction tends to decline over the life course (VanLaningham et al., 2001) old couples' relationship satisfaction seems to be maintained at a high level. However, we found a gender difference in relationship satisfaction in old couples, whereby women reported marginally lower relationship satisfaction than men. This finding is consistent with a meta-analysis on gender differences in marital satisfaction showing that, on average, women report slightly less marital satisfaction than men (Jackson, Miller, Oka, & Henry, 2014).

Regarding the associations between the three predictor variables and relationship satisfaction, results revealed both gender and age differences and similarities, providing evidence for the assumption that there might be different pathways to relationship satisfaction. First, findings showed that partner's supportive dyadic coping predicted relationship satisfaction equally by gender and age group (actor and partner effects). This finding is in line with Maurer (as cited in Bodenmann, 2000) showing no significant age differences between young and old couples in the association between supportive dyadic coping and relationship satisfaction. Feeling supported by one's partner does not only reduce stress but also enhances a couple's functioning through reciprocal trust, mutual closeness, intimacy, and sense of "we-ness" (Bodenmann, 2005). Thus, our findings provide support that the positive effects of dyadic coping for relationship functioning found for young couples can be extended to older, long-term couples. This finding is also consistent with socio emotional selectivity theory stating that older couples seek or emphasize positive, emotionally meaningful experiences and

avoid negative emotions within intimate relationships (Carstensen, Isaacowitz, & Charles, 1999).

Further, commitment showed similar positive effects on relationship satisfaction for both young women and either partner in old couples. However, for young men, results revealed the lowest effect of commitment on relationship satisfaction. It could be that young men are not yet ready to make a greater commitment to the relationship, and thus they compare their current relationship with alternate, perhaps more attractive partners (Pope, 2013). Furthermore, in his model, M. P. Johnson (1973, 1999) distinguished between three distinct types of commitment: 1) *personal commitment* to the relationship due to dedication and love, 2) *moral commitment* to the relationship because of moral obligations and 3) *structural commitment* to the relationship to avoid the costs when leaving the relationship. It may be that for couples at different points of relationship development and the life course, one of these three types of commitment plays a more crucial role than the others. M. P. Johnson (1973, 1999) stated that the balance of current versus alternative attractions available may play a more important role for commitment at earlier stages of the relationship, whereas structural barriers to end a relationship (e.g., children, money, intimacy) are likely to be more important at later stages of relationship development and the life course.

Moreover, findings revealed similar positive effects of sexual satisfaction on relationship satisfaction in both old men and either partner in young couples. It is interesting to note that the highest association between sexual and relationship satisfaction was found in older women. Sexual satisfaction is highly subjective and thus, different interpretations of what accounts for the quality of sexual interactions can explain the found effect. From a life span perspective, sexual satisfaction is dynamic and likely changes as couples age (Lodge & Umberson, 2012). It is plausible that as couples age, sexual frequency but not the need for affection or tenderness declines. Nevertheless, there is evidence that married couples often maintain active sex lives into later life as a marker of successful, healthy aging (Katz &

Marshall, 2003). For young couples, in contrast, a typical challenge in the first years of their relationship is the development of intimacy and attachment that can be reached through sexual activity and that in turn enhances their relationship satisfaction (Schneewind, Graf, & Gerhard, 1999).

According to these findings, there is some evidence for the assumption that young and old couples are equally able to maintain high levels of relationship satisfaction, but that the pathways towards this same outcome partially differ between young versus old couples and men versus women. This is also interesting from the standpoint that longitudinal research showed a decline in relationship satisfaction over the life course (VanLaningham et al., 2001). It could be that there have been preceding adaptive processes in the old couples to restore or stabilize their relationship satisfaction when facing age-related challenges or stressful life events. Further support for this assumption comes from a study focusing on dyadic adaptation to dementia in which the authors highlighted the adaptive potential of old couples, assuming that they may be able to stabilize their relationship satisfaction if they adapt their intradyadic communication behaviors (Martin, Peter-Wight, Braun, Hornung, & Scholz, 2009). Thus, the maintenance or stabilization of relationship satisfaction across the life course can be seen as a continuous process of optimization and adaptation. Moreover, relationship satisfaction may not signify the same for all couples. Rather, they may all have their own subjective criteria of what makes an intimate relationship satisfying. Therefore, it could also be that old couples adapted their requirement level in relationship satisfaction to the age-related challenges.

This study also contains some limitations. First, in this study, we only used self-reports to assess the study variables. It is well documented in the literature that this methodological approach causes some problems. Specifically, it might be that couples tend to rate any item as positive in the sense of a positive evaluative bias regarding items concerning their intimate relationship (Fincham & Bradbury, 1987). Second, this study was based on cross-sectional data, thus we cannot draw conclusions about the direction of the effects. Third,

regardless of the participants' gender or age, the vast majority of our sample was highly satisfied with their relationship hence the resulting amount of variability in relationship satisfaction was quite low. Fourth, most of the old couples participating in this study had no serious health problems, thus our sample represents older, healthy couples. Therefore, the generalizability of our findings to very old couples who experience severe health problems is limited. Fifth, in this study, we used a between-person design, making conclusions about mean associations between the predictor variables and relationship satisfaction across a large sample of couples. However, couples may differ to which extent they experience and appraise stressful life events as well as the adaptive processes they use to cope with them. Thus, from between-person studies we do not know the extent to which the findings of this research can be generalized to one particular couple (Martin & Moor, 2012).

Conclusion and Future Research Directions

There is a multitude of factors that affect couples' evaluations of relationship satisfaction and these evaluations can change over time and at different points of the relationship. In this study, although we found both gender and age differences in the associations of perceptions of partners' supportive dyadic coping, commitment, and sexual satisfaction with relationship satisfaction, men versus women and young versus old couples seem to be highly satisfied with their relationships. A positive finding that emerges from this study is that there might be different pathways to maintain or stabilize relationship satisfaction over the life course. This means that there are different tools and strategies than can be applied by couples to stabilize their relationship satisfaction. However, what these underlying mechanisms and adaptive processes used by different couples are and how these mechanisms interact remain unclear. Therefore, research is needed on within-person processes with multiple measurement occasions to gain further insight into the different pathways that promote and maintain relationship satisfaction over the life course, and to draw conclusions about which and under what circumstances couples use different adaptive processes.

5 General discussion

In this final chapter, results from the three studies presented in this thesis are summarized, and their contribution to an advanced understanding of the developmental course of intimate relationships across the lifespan is discussed. The thesis concludes by highlighting some methodological issues concerning the study of intimate relationships and by addressing additional themes that merit more attention in future research.

5.1 Summary and discussion of study results

5.1.1 Predictors of long-term couples' relationship satisfaction

Thus far, most research on predictors of relationship satisfaction has focused almost exclusively on young or newlywed couples in the early stages of their relationship, although many relationships last for decades. There is little research about relationship satisfaction among middle-aged couples, and even fewer studies have examined older couples in long-term relationships. Thus, the first aim of this thesis was to review and evaluate the current state of research on predictors of relationship satisfaction among middle-aged and older couples in long-term relationships, on the basis of a specially developed conceptual model (see Figure 2). The basic idea of this conceptual model is to show that the maintenance or stabilization of relationship satisfaction at different developmental stages of a long-term relationship depends on both the occurrence of environmental challenges and coping abilities and skills to manage the stress. Based on this model, we argue that there are at least two different pathways to maintain relationship satisfaction and one pathway that may lead to relationship dissatisfaction. First, when couples face a number of environmental challenges, but possess the coping abilities and skills necessary to overcome the stress, then relationship satisfaction can be maintained. Second, when facing few stressful life events, couples do not need a lot of coping abilities and skills to maintain relationship satisfaction. Third, when

facing a number of stressful events, couples' lack of coping abilities and skills to manage the stress can lead to relationship dissatisfaction or even deterioration. Moreover, the model shows that each developmental stage of the relationship contains several threats to couples' relationship satisfaction, and that couples need different abilities and skills to cope with these stage-specific or stage-unspecific environmental stressors. We argue that couples respond to these threats by engaging in coping efforts that result in stability of relationship satisfaction.

It is hardly conceivable that just a single variable, e.g., dyadic coping, accounts for the variance in relationship satisfaction. It is plausible to assume that couples selectively use their dyadic coping skills in times when these are particularly needed. Happy couples do not need to cope positively all day to maintain their satisfaction levels. Rather, for those couples it is important that the necessary resources will be available when facing stressful life events. Thus, one could assume that satisfied couples may adaptively and situational use their coping abilities and skills.

The identified predictors of long-term couples' relationship satisfaction can be divided into three main categories of influential factors: individual, dyadic, and contextual factors. However, relationship researchers do not yet know exactly what the patterns of the dynamic interplay are by which these several factors influence relationship satisfaction. In future research the mechanisms of the underlying adaptive processes through which couples can maintain or stabilize relationship satisfaction over time should be examined.

One of the methodological issues of the reviewed studies is the diversity of used self-report questionnaires to assess relationship satisfaction, making a comparison of the findings of different studies difficult. Because relationship satisfaction is one of the most widely studied constructs in relationship research, it is necessary to take a critical look at the measurement instrument used for measuring relationship satisfaction, what has been done in the next study reported here.

5.1.2 Relationship Assessment Scale

In our second study, we critically examined the Relationship Assessment Scale (RAS; Hendrick, 1988) – one of the most widely used self- report measures of global relationship satisfaction – addressing the research question "To which extent the seven items of the RAS measure in fact two independent aspects of relationship quality: relationship satisfaction versus the frequency of relationship problems?". To test this research question, group-split and correlational analyses were performed. Results from the analyses provided evidence that the RAS reliably and validly measures both global relationship satisfaction and the frequency of relationship problems, suggesting researchers can use this measure for assessing two relevant, but rather different aspects of relationship quality.

As mentioned in the introduction, there are a number of self-report questionnaires available to assess relationship satisfaction or related constructs. Consequently, before choosing such a measure, relationship researchers need to consider several methodological issues. Concretely, they should evaluate (a) the appropriateness of the measure for the own research question, (b) the item content, (c) the psychometric properties of the measure, e.g., reliability of the scores, and (d) the response format, i.e., either various response formats or a uniform one. Accordingly, the various existing measures differ in their usefulness for a specific research question.

Hendrick (1988) stated that particular strengths of the RAS are its brevity and its applicability to diverse types of intimate relationships. However, in a meta-analysis of reliability-generalization, Graham et al. (2011) showed that the RAS produces more reliable scores when administered to older people, long-term relationships, and married couples. This finding is surprising, as Hendrick (1988) developed the RAS on a sample of dating students. However, the RAS is a global measure of relationship satisfaction that assesses partners' subjective evaluations of the relationship (Vaughn & Baier, 1999). Thus, when using the RAS, researchers' primary interest should be in partners' subjective valuing of their

relationship rather than on specific aspects of the relationship (Hendrick, Dicke, & Hendrick, 1998). Furthermore, the RAS measures relationship satisfaction as a state at a given time rather than a process, thus assessing partners' current satisfaction with the relationship.

As already mentioned in the introduction, global measures – that is, evaluations of the relationship as a whole – are favored by relationship researchers. However, intimate partners can understand the question about relationship satisfaction in different ways, so it is plausible to assume that people might in fact evaluate different things. In order to develop a precise measurement instrument for relationship satisfaction, relationship researchers should think about what causes intimate partners – and in what ways – to evaluate their relationship satisfaction. It is plausible that the evaluation of relationship satisfaction may vary across different people and across different age groups, being at different stages of the relationship.

To date, relationship satisfaction is predominantly measured through self-report questionnaires, asking people directly of how satisfied they are with the relationship. However, this research approach might be confounded by couples' response styles, social desirability, and inaccurate perception (Norton, 1983). Accordingly, another methodological issue that can be observed in most studies examining non-clinical couples are ceiling effects regards relationship satisfaction scores. As Norton (1983, p. 142) noted "the nature of marital relationships probably inherently involves skewed data." Thus, intimate partners have the tendency to positively evaluate any item concerning their relationship in the sense of a positive evaluative bias. In order to overcome these limitations, future research on intimate relationships should include different methodological approaches to assess relationship satisfaction. For example, implicit measures could be a possibility to examine constructs indirectly (Bradbury & Karney, 2010).

In the 25 studies included in the review on predictors of long-term couples' relationship satisfaction, researchers have examined different samples of couples and used different measures for assessing relationship satisfaction, making a comparison of findings

across studies difficult. Hence it becomes increasingly important to define the construct of relationship satisfaction properly and to use a consistent terminology to get rid of the conceptual confusion (Fincham & Bradbury, 1987).

In the next study presented here, we empirically tested whether and in what ways there are gender and age differences or similarities in the associations between specific predictors and relationship satisfaction in a sample of relatively satisfied couples.

5.1.3 Different pathways to relationship satisfaction

The main purpose of this study was to examine whether and in what ways there are gender and age differences or similarities in the associations of partner's supportive dyadic coping, commitment, and sexual satisfaction with relationship satisfaction in a sample of 122 young and 121 old couples. We assumed that (a) young and old couples are equally satisfied with their relationships, but that (b) young versus old and (c) men versus women differ in the relational patterns between predictors and relationship satisfaction, and that differences are more pronounced in women versus men. The key finding that emerged from the analyses was that young and old couples are equally able to maintain high levels of relationship satisfaction, but that the pathways through which they achieve this goal partially differ by gender and age group. These findings suggest that there exist multiple pathways to maintain or stabilize the (optimal) state of relationship satisfaction over the life course.

Overall, men and women in old couples were highly satisfied with their relationship, and their satisfaction level did not differ significantly from young couples. This might be a surprising finding as longitudinal research has shown a gradual decline of relationship satisfaction over the life course (e.g., VanLaningham et al., 2001). Thus, one could assume that stable relationship satisfaction with age can be a marker of stable potential adaptive processes to stressful events encountering over the life course. Although young and old couples report high levels of relationship satisfaction, the pathways to this outcome is not

uniform. It is possible that age differences in emotion-regulation strategies (Charles, Piazza, Luong, & Almeida, 2009) can shed light on the age differences found in the associations between specific predictors and relationship satisfaction. For example, compared to young adults, older adults are more likely to use avoidant strategies (e.g., doing nothing) in terms of potential problems in their relationships (e.g., Blanchard-Fields, 2007). This emotion-regulation strategy, defined as *situation selection*, is possibly one of the best emotion regulation tactics of older adults, preventing them from distressing situations (Gross, 1998). An example of older adults' adaptive processes is Carstensen's (1992) socio-emotional selectivity theory stating that reduced rates of social interaction in late life can be seen as the result of selection processes over the life course seeking to maximize social and emotional gains and minimize social and emotional risks. Accordingly, intimate partners can stabilize their state of relationship satisfaction by selecting the situations where they feel themselves satisfied. For example, the more satisfied a partner is at home and with the partner the less time he or she will spend at the workplace. In contrast, a partner who experiences a lot of relationship difficulties with the partner will probably spend more time at the workplace in order to avoid conflicts at home. Therefore, one could assume that the maintenance or stabilization of relationship satisfaction across the life course may be a continuous process of adaptation that keeps partners together even when problems occur.

As it is likely to recruit rather highly satisfied couples as most people in dissatisfying relationships will not stay in these relationships and are likely to have separated or divorced, future research should take into account that satisfied couples are likely to differ in significant ways from couples who are less satisfied with their relationships, e.g., dissatisfied couples have more conflicts.

Moreover, as in the second study, findings of this third study are also based on cross-sectional data by which causal conclusions about the direction of the effects cannot be drawn. For example, it is possible that perceptions of partners' supportive dyadic coping predict

relationship satisfaction or that intimate partners in satisfying relationships are more willing to perceive their partners' coping efforts to be supportive. Hence further longitudinal research is necessary to examine if age differences found in this study are due to cohort effects or some other confound, or if they are indeed the result of age-specific characteristics.

In this third study, we used the seven items of the RAS (Hendrick, 1988; German translation by Sander & Böcker, 1993) to assess relationship satisfaction. A key finding of the second study presented in this thesis was that RAS items 1 to 6 are the items best representing global relationship satisfaction. Therefore, it would be interesting to examine whether or not the results would be the same, if we were to rerun the analyses in this third study using the six rather than the original seven RAS items.

As already mentioned, relationship satisfaction may not signify the same for each and every couple. Rather, they are likely to have their own subjective criteria of what factors cause a satisfying relationship. It is plausible to assume that old couples adapted their requirement level in relationship satisfaction to the age-related challenges. As people age, dyadic resources might have increasing importance because physical and cognitive resources decline. Further, it could be that dyadic coping nevertheless is more important for old couples as previous research noted that intimate partners often serve as the primary support provider for each other (Bodenmann, 2000). Furthermore, with age, couples have more experience dealing with stress. It is suggested that couples' experience in successfully managing prior stressful life events predicts successful adaptation to future stressors, in the sense of developing resilience to the detrimental effects of stress on relationship satisfaction (Neff & Broady, 2011). Thus, older adults may have developed more coping resources and thus appraise arising problems as less stressful. This accumulated experience is what could have deepened their commitment and intimacy (Story & Bradbury, 2004). Intimate relationships that survive into the later years are often satisfying and emotionally close (Levenson, Carstensen, & Gottman, 1993).

At present, marriages are more likely to end through divorce than to the death of a spouse (Sweeney, 2010). Due to the increasing number of middle-aged and older adults in the society, remarriage or rather re-partnering has emerged as an important topic for relationship researchers. Therefore, future research should consider that remarriages or new partnerships can differ significantly from first marriages or relationships.

One conclusion that can be drawn from the findings of this third study is that there exist multiple pathways to maintain or stabilize the (optimal) state of relationship satisfaction over the life course. However, because environmental challenges can have different effects on couples' relationship outcomes, the study of intimate relationships is extremely challenging, due to couples' involvement in complex and dynamic environments. A shift from between-person comparisons to within-person processes would greatly expand what is already known about the trajectories of intimate relationships.

5.2 Methodological considerations

This chapter gives a broad overview on the most important methodological issues in the three studies presented in this thesis and in the study of intimate relationships in general. Thus far, previous studies of intimate relationships have almost exclusively focused on young or newlywed couples in the early years of their relationship or marriage, and have not considered long-term relationships. In order to advance the understanding of the developmental course of relationship satisfaction, the examination of older couples is of great importance. However, the few studies that have considered long-term relationships have been mainly cross-sectional. In this thesis, findings of the two empirical studies were also based on cross-sectional data. Thus, it is possible that the age differences found in the third study are due to cohort effects or some other confound. Consequently, intimate relationships and their developmental course can be best examined with longitudinal research designs.

Furthermore, the two empirical studies presented in this thesis relied exclusively on self-report data. The potential problems by applying this methodological approach are well documented in the literature. The most prominent issue of self-report questionnaires is sentiment override – that is, satisfied intimate partners respond in positive ways to everything about their relationship (Weiss, 1980). Given the limitations of self-report questionnaires, future research on intimate relationships should include different methodological approaches to assess relationship satisfaction. For example, implicit measures could be an alternative approach to examine relationship satisfaction indirectly, preventing confounding results due to social desirability tendencies of couples. Hence the identification and evaluation of the wide array of factors influencing relationship satisfaction requires at best a multi-method approach including ratings of psychological (e.g., mood, stress level) and observational measures. Furthermore, the significant link between relationship satisfaction and physical and psychological well-being is well documented in the literature (e.g., Uchino et al., 1996). An interesting finding that emerged in the study by Thomsen and Gilbert (1998) is that there is greater synchrony in physiological systems among satisfied couples than among dissatisfied couples. Therefore, it would be interesting to also examine physiological data (e.g., heart rate, salivary cortisol) in daily dyadic interactions in future research. Further, an evaluation of the patterns of dynamic interplay between influencing factors will be needed.

The fact that almost exclusively very satisfied couples participated in our studies creates both strengths and limitations. An overrepresentation of satisfied couples, compared to dissatisfied couples, can be observed in most non-clinical studies. D. R. Johnson (as cited in J. R. Anderson et al., 2010) found evidence across several national studies, that 60% to 80% of the participants select the “very happy” category, whereas around 3% of them select the “not too happy” category. Thus, our samples of couples are probably in better physical health, more socially active, and more satisfied with their relationships than the general population, limiting the generalizability of the findings to dissatisfied couples. Nonetheless, we were

particularly interested in satisfied couples, and for that purpose our fairly homogenous sample worked well. In order to compare relationship patterns between satisfied and dissatisfied couples, researchers could compare non-clinical couples with clinical couples, as Hendrick et al. (1998) found that the sample of persons seeking relationship therapy reported significantly lower relationship satisfaction than did the non-clinical sample.

A follow-up arising question that needs to be addressed is whether most studies including satisfied, healthy couples in fact measure relationship dissatisfaction rather than relationship satisfaction. By this we mean that relationship researchers want to measure and explain variance in relationship satisfaction. However, as most couples in non-clinical studies are highly satisfied with their relationships, it is plausible to assume that the variance found in the outcome variable comes from those few couples who are relatively dissatisfied with their relationship. This would have implications for the interpretation of the found results of studies.

Another methodological issue in the study of intimate relationships is the unit of analysis. Regarding dyadic research, the unit of analysis should be the dyad rather than the individual (Kenny, Kashy, Cook, 2006). In the review of 25 relevant studies on predictors of long-term couples' relationship satisfaction, we included only studies that involve both partners of a couple, thus applying a dyadic approach. A main characteristic of dyadic data is its nonindependence, i.e. the scores of both members of a dyad are dependent on each other (Kenny et al., 2006). One statistical model that accounts for the dyadic nature of couples' data is the Actor-Partner Interdependence Model (APIM; Kenny et al., 2006). With the APIM, researchers can not only test actor effects but also partner effects. In the third study, we considered this and utilized an extended version of the APIM that accounts for the nonindependence of dyadic data.

In the two empirical studies presented in this thesis a between-subjects design was used. It is stated that "in nomothetic analyses, research is conducted across many dyads, and

the focus is on establishing general laws of behavior that apply to all dyads of a similar nature" (Kenny et al., 2006, p. 10). However, as couples are not alike, this raises the question to what extent findings of between-subjects studies can be generalized to each and every couple. Thus, to examine the distinct patterns of adaptive processes used by different couples, future research should take into account within-person longitudinal data.

The above mentioned methodological considerations of the studies presented in this thesis and in the study of intimate relationships in general can address future directions in this research field that will be discussed in more detail in the next chapter.

5.3 Future directions

Despite our increased knowledge from previous research on intimate relationships and particularly the developmental course of relationship satisfaction, there remain relevant unanswered questions. There are a lot of factors likely to affect couples' relationship satisfaction. But we do not yet know exactly what the patterns of the dynamic interplay are by which the several factors influence relationship satisfaction. It becomes increasingly important to understand the conditions under which stability of relationship satisfaction is maintained. However, there is a lack of necessary longitudinal, process-oriented data to understand these pathways. Therefore, one research direction should be assessing the mechanisms and underlying dynamic processes that explain stability in relationship satisfaction. Accordingly, a primary objective is the development of a theoretical model that best explains the stability of relationship satisfaction over the life course. Such a model should specify the mechanism of change within relationships and that account for variability in relationship outcomes between couples over time (Karney & Bradbury, 1995). Further, it should take into account that the maintenance or stabilization of relationship satisfaction results from a complex and dynamic interplay between individual, dyadic, and contextual factors and should also consider the different goals, relationship stage, abilities and skills of

different couples. We argue that a dynamic model of pathways to the stabilization of relationship satisfaction should be applicable to different types of intimate relationships existing nowadays (e.g., cohabiting, dating, and childless couples). Thus, future relationship research should broaden the focus beyond examining heterosexual couples to also examine diverse types of intimate relationships such as gay or lesbian couples, cohabiting couples, and couples living apart together (LAT).

One research direction which remains underinvestigated and that deserves greater theoretical and empirical attention is the investigation of processes within the partners. Previous research has focused almost exclusively on between-subjects designs. Such research designs allow researchers to make conclusions – for example it might be found that couples who communicate in a certain way are likely to report certain levels of relationship satisfaction. However these investigations cannot address how communication behavior is associated with different levels of relationship satisfaction within partners (McNulty & Karney, 2001). It is emphasized that in the study of intimate relationships, it is necessary to consider the contexts within which couples are embedded, and where relationship processes take place (Neff & Karney, 2004). Therefore, to capture these relationship processes and the interdependency of behavior between intimate partners (Bradbury et al., 2000), couples are best studied under real-life conditions such as in their daily social lives. Such tracks of couples' daily lives would offer new insights in events arising within dyadic interactions which may affect changes in relationships and relationship satisfaction. A possibility to examine processes between intimate partners is to assess dimensions of a relationship at several points in time. Already Hendrick et al. (1998) emphasized the advantages of a cumulative record of relationship satisfaction compared with a single state measure. The authors stated that such a methodological approach would shed light on the fluctuations of relationship satisfaction and would begin to more faithfully track relationship changes. Concretely, within-subject analyses would help to examine the associations between daily

fluctuations of partners' evaluations of specific aspects of the relationship and the relationship as a whole over time (McNulty & Karney, 2001). In sum, ideal future research on intimate relationships might best apply a multi-method approach examining couples' daily lives including daily ratings of various psychological (e.g., mood, stress level), observational (e.g., Electronically Activated Recorder; Mehl & Robbins, 2012), and physiological measures (e.g., heart rate, salivary cortisol) over a short period of time. Investigating processes within intimate partners on a daily basis over a short period of time would be extremely valuable for examining within-couples dynamics that account for relationship change and the underlying mechanisms of how these processes influence relationship satisfaction (McNulty & Karney, 2001).

5.4 Concluding remarks

Based on the findings of the studies presented in this thesis, the following conclusions can be drawn: (a) Couples in long-term relationships are able to maintain relatively high, stable levels of relationship satisfaction although longitudinal research has shown a gradual decline of relationship satisfaction over time, (b) couples in long-term relationships may be able to adapt dynamically when facing stressful life events in order to maintain or stabilize their relationship satisfaction, and (c) the maintenance or stabilization of relationship satisfaction is likely to require different behaviors and adaptive processes of a couple at different stages of the relationship – these additionally may allow stable levels of relationship satisfaction over time. However, we do not yet fully understand or know the mechanism of underlying dynamic processes used by different couples for promoting and maintaining relationship satisfaction. This research field is a promising area with tremendous import to the increasing number of middle-aged and older people in modern societies.

6 References

Acitelli, L. K., & Antonucci, T. C. (1994). Gender differences in the link between marital support and satisfaction in older couples. *Journal of Personality and Social Psychology, 67*(4), 688-698. doi: 10.1037/0022-3514.67.4.688

Almeida, D. M., & Kessler, R. C. (1998). Everyday stressors and gender differences in daily distress. *Journal of Personality and Social Psychology, 75*(3), 670-680. doi: 10.1037/0022-3514.75.3.670

Amato, P. R., Johnson, D. R., Booth, A., & Rogers, S. J. (2003). Continuity and change in marital quality between 1980 and 2000. *Journal of Marriage and Family, 65*, 1-22. doi: 10.1111/j.1741-3737.2003.00001.x

Anderson, S. A., Russell, C. S., & Schumm, W. R. (1983). Perceived marital quality and family life-cycle categories: A further analysis. *Journal of Marriage and the Family, 45*, 127-129. doi: 10.2307/351301

Anderson, J. R., Van Ryzin, M. J., & Doherty, W. J. (2010). Developmental trajectories of marital happiness in continuously married individuals: A group-based modeling approach. *Journal of Family Psychology, 24*(5), 587-596. doi: 10.1037/a0020928

Arriaga, X. B., & Agnew, C. R. (2001). Being committed: Affective, cognitive, and conative components of relationship commitment. *Personality and Social Psychology Bulletin, 27*, 1190-1203. doi: 10.1177/0146167201279011

Baas, S., & Schmitt, M. (2004). Die Bedeutung der Einkommensverteilung für die Ehezufriedenheit langjährig verheirateter Ehepaare. *Zeitschrift für Familienforschung, 15*(3), 268-288. http://nbn-resolving.de/urn:nbn:de:0168-ssoar-323908

Be, D., Whisman, M. A., & Uebelacker, L. A. (2013). Prospective associations between marital adjustment and life satisfaction. *Personal Relationships, 20*, 728-739. doi: 10.1111/pere.12011

Bethea, L. S. (2002). The impact of an older adult parent on communicative satisfaction and dyadic adjustment in the long-term marital relationship: Adult-children and spouses' retrospective accounts. *Journal of Applied Communication Research, 30*(2), 107-125. doi: 10.1080/00909880216582

Birditt, K. S., & Fingerman, K. L. (2005). Do we get better at picking our battles? Age differences in descriptions of behavioral reactions to interpersonal tensions. *Journal of Gerontology: Psychological Sciences, 60B*, 121-128. doi: 10.1093/geronb/60.3.P121

Birditt, K. S., Fingerman, K. L., & Almeida, D. M. (2005). Age differences in exposure and reactions to interpersonal tensions: A daily diary study. *Psychology and Aging, 20*(2), 330-340. doi: 10.1037/0882-7974.20.2.330

Blanchard-Fields, F. (2007). Everyday problem solving and emotion: An adult developmental perspective. *Current Directions in Psychological Science, 16*, 26-31. doi: 10.1111/j.1467-8721.2007.00469.x

Blum, J. S., & Mehrabian, A. (1999). Personality and temperament correlates of marital satisfaction. *Journal of Personality, 67*, 93–125. doi: 10.1111/1467-6494.00049

Bodenmann, G. (1997). Dyadic coping – a systemic-transactional view of stress and coping among couples: Theory and empirical findings. *European Review of Applied Psychology, 47*, 137-140.

Bodenmann, G. (2000). *Stress und coping bei Paaren* [Stress and coping in couples]. Göttingen, Germany: Hogrefe.

Bodenmann, G. (2005). Dyadic coping and its significance for marital functioning. In T. Revenson, K. Kayser, & G. Bodenmann (Eds.), *Couples coping with stress: Emerging perspectives on dyadic coping* (pp. 33-50). Washington, DC: APA.

Bodenmann, G. (2008). *Dyadisches Coping Inventar (DCI). [Dyadic Coping Inventory]. Test manual.* Bern, Göttingen: Huber & Hogrefe Testverlag.

Bodenmann, G., & Cina, A. (2006). Stress and coping among stable-satisfied, stable-distressed and separated/divorced Swiss couples: A 5-year prospective longitudinal study. *Journal of Divorce and Remarriage, 44*, 71-89. doi: 10.1300/J087v44n01_04

Bodenmann, G., Meuwly, N., & Kayser, K. (2011). Two conceptualizations of dyadic coping and their potential for predicting relationship quality and individual well-being. *European Psychologist, 16*(4), 255-266. doi: 10.1027/1016-9040/a000068

Bodenmann, G., Schär, M., & Gmelch, S. (2008). Multi-dimensionaler Stressfragebogen für Paare (MDS-P). Unveröffentlichter Fragebogen. Zürich: Universität Zürich.

Bodenmann, G., & Widmer, K. (2000). Stressbewältigung im Alter: Ein Vergleich von Paaren jüngeren, mittleren und höheren Alters. *Zeitschrift für Gerontologie und Geriatrie, 33*, 217-228. doi: 10.1007/s003910070063

Bradbury, T. N., Fincham, F. D., & Beach, S. R. (2000). Research on the nature and determinants of marital satisfaction: A decade in review. *Journal of Marriage and Family, 62*, 964-980. doi: 10.1111/j.1741-3737.2000.00964.x

Bradbury, T. N., & Karney, B. R. (2010). *Intimate relationships.* New York, London: W. W. Norton & Company.

Bulanda, J. R. (2011). Gender, marital power, and marital quality in later life. *Journal of Women & Aging, 23*, 3-22. doi: 10.1080/08952841.2011.540481

Burgess, E. W., Locke, H. J., & Thomes, M. M. (1971). *The family*: *From traditional companionship.* New York: Van Nostrand Reinhold.

Burr, W. R. (1970). Satisfaction with various aspects of marriage over the life cycle: A random middle-class sample. *Journal of Marriage and the Family, 32*, 29-37. doi: 10.2307/349968

Busby, D. M., Christensen, C., Crane, D. R., & Larson, J. H. (1995). A revision of the dyadic adjustment scale for use with distressed and nondistressed couples: Construct

hierarchy and multidimensional scales. *Journal of Marital Family and Therapy, 21*, 289-308. doi: 10.1111/j.1752-0606.1995.tb00163.x

Call, V., Sprecher, S., & Schwartz, P. (1995). The incidence and frequency of marital sex in a national sample. *Journal of Marriage and the Family, 57*(3), 639-652. http://www.jstor.org/stable/353919

Carstensen, L. L. (1992). Social and emotional patterns in adulthood: Support for socioemotional selectivity theory. *Psychology and Aging, 7*, 331-338. doi: 10.1037/0882-7974.7.3.331

Carstensen, L. L., Gottman, J. M., & Levenson, R. W. (1995). Emotional behavior in long-term marriage. *Psychology and Aging, 10*(1), 140-149. doi: 10.1037/0882-7974.10.1.140

Carstensen, L. L., Isaacowitz, D. M., & Charles, S. T. (1999). Taking time seriously. A theory of socioemotional selectivity. *American Psychologist, 54*(3), 165-181. doi: 10.1037/0003-066X.54.3.165

Charles, S. T., Piazza, J. R., Luong, G., & Almeida, D. M. (2009). Now you see it, now you don't: Age differences in affective reactivity to social tensions. *Psychology and Aging, 24*(3), 645-653. doi: 10.1037/a0016673

Claxton, A., O'Rourke, N., Smith, J. Z., & DeLongis, A. (2011). Personality traits and marital satisfaction within enduring relationships: An intra-couple discrepancy approach. *Journal of Social and Personal Relationships, 29*(3), 375-396. doi: 10.1177/0265407511431183

Clements, R., & Swensen, C. H. (1999). Development of a marriage problems scale for use with older couples. *Clinical Gerontologist, 20,* 35-46. doi: 10.1300/J018v20n02_04

Clements, R., & Swensen, C. H. (2000). Commitment to one's spouse as a predictor of marital quality among older couples. *Current Psychology: Developmental – Learning – Personality – Social, 19*(2), 110-119. doi: 10.1007/s12144-000-1007-7

Cohan, C. L., & Bradbury, T. N. (1997). Negative life events, marital interaction, and the longitudinal course of newlywed marriage. *Journal of Personality and Social Psychology, 73*(1), 114-128. doi: 10.1037/0022-3514.73.1.114

Conger, R. W., Lorenz, F. O., Elder, G. H., Simons, R. L., & Ge, X. (1993). Husband and wife differences in response to undesirable life events. *Journal of Health and Social Behavior, 34*, 71-88. http://www.jstor.org/stable/2137305

Coolidge, F. L. (1999). *Horney-Coolidge Tridimensional Inventory: Manual.* Colorado Springs, CO: Author.

Costa, P. T., & McCrae, R. R. (1992a). *Professional manual: Revised NEO personality inventory (NEO PI-R) and NEO five-factor inventory.* Odessa, FL: Psychological Assessment Resources.

Costa, P. T., & McCrae, R. R. (1992b). Normal personality assessment in clinical practice: The NEO personality inventory. *Psychological Assessment, 4*, 5-13. doi: 10.1037/1040-3590.4.1.5

Davey, A., & Szinovacz, M. E. (2004). Dimensions of marital quality and retirement. *Journal of Family Issues, 25*(4), 431-464. doi: 10.1177/0192513X03257698

Diamond, L. M., Fagundes, C. P., & Butterworth, M. R. (2010). Intimate relationships across the life span. In R. M. Lerner, M. E. Lamb, & A. M. Freund (Eds.), *The Handbook of Life-Span Development, Vol. 2: Social and Emotional Development* (pp. 379-433). John Wiley & Sons, Inc. doi: 10.1002/9780470880166.hlsd002011

Emery, N. J. (2000). The eyes have it: The neuroethology, function and evolution of social gaze. *Neuroscience and Biobehavioral Reviews, 24*, 581-604. doi: 10.1016/S0149-7634(00)00025-7

Fincham, F. D., & Beach, S. R. H. (2006). Relationship satisfaction. In A. L. Vangelisti & D. Perlman (Eds.), *The Cambridge handbook of personal relationships* (pp. 579–594). New York: Cambridge University Press.

Fincham, F. D., & Bradbury, T. N. (1987). The assessment of marital quality: A reevaluation. *Journal of Marriage and the Family, 49*, 797-809. doi: 10.2307/351973

Fincham, F. D., & Linfield, K. J. (1997). A new look at marital quality: Can spouses feel positive and negative about their marriage?. *Journal of Family Psychology, 11*(4), 489-502. doi: 10.1037/0893-3200.11.4.489-502

Fincham, F. D., & Rogge, R. (2010). Understanding relationship quality: Theoretical challenges and new tools for assessment. *Journal of Family Theory & Review, 2*, 227–242. doi: 10.1111/j.1756-2589.2010.00059.x

Fingerman, K. L, & Charles, S. T. (2010). It takes two to tango: Why older people have the best relationships. *Current Directions in Psychological Science, 19*(3), 172-176. doi: 10.1177/0963721410370297

Finkel, J. S., & Hansen, F. J. (1992). Correlates of retrospective marital satisfaction in long-lived marriages: A social constructivist perspective. *Family Therapy*, *19*(1), 1-16.

Funk, J. L., & Rogge, R. D. (2007). Testing the ruler with item response theory: Increasing precision of measurement for relationship satisfaction with the Couples Satisfaction Index. *Journal of Family Psychology, 21*, 572-583. doi: 10.1037/0893-3200.21.4.572

Gilford, R., & Bengtson, V. (1979). Measuring marital satisfaction in three generations: Positive and negative dimensions. *Journal of Marriage and Family, 41*(2), 387-398. doi: 10.2307/351705

Glenn, N. D. (1990). Quantitative research on marital quality in the 1980s: A critical review. *Journal of Marriage and the Family, 52*, 818-831. http://www.jstor.org/stable/353304

Glenn, N. D. (1998). The course of marital success and failure in five American 10-year marriage cohorts. *Journal of Marriage and Family, 60*(3), 569-576. doi: 10.2307/353529

Gough, H. G., & Heilbrun, A. B. (1980). *The Adjective Check List manual*. Palo Alto, CA: Consulting Psychologists Press.

Graham, J. M., Diebels, K. J., & Barnow, Z. B. (2011). The reliability of relationship satisfaction: A reliability generalization meta-analysis. *Journal of Family Psychology, 25*, 39-48. doi: 10.1037/a0022441

Gross, J. J. (1998). Antecedent- and response-focused emotion regulation: Divergent consequences for experience, expression, and physiology. *Journal of Personality and Social Psychology, 74*, 224–237. doi: 10.1037/0022-3514.74.1.224

Hahlweg, K. (1979). Konstruktion und Validierung des Partnerschaftsfragebogens PFB. *Zeitschrift für Klinische Psychologie*, *8*(1), 17-40.

Hahlweg, K. (1996). *Fragebogen zur Partnerschaftsdiagnostik (FPD). Handanweisung.* Göttingen, Bern, Toronto, Seattle: Hogrefe Verlag.

Harper, J. M., Schaalje, B. G., & Sandberg, J. G. (2000). Daily hassles, intimacy, and marital quality in later life marriages. *The American Journal of Family Therapy, 28*, 1-18. doi: 10.1080/019261800261770

Haynes, S. N., Floyd, F. J., Lemsky, C., Rogers, E., Winemiller, D., Heilman, N., … Cardone, L. (1992). The Marital Satisfaction Questionnaire for older persons. *Psychological Assessment, 4*(4), 473-482. doi: 10.1037/1040-3590.4.4.473

Hendrick, S. S. (1988). A generic measure of relationship satisfaction. *Journal of Marriage and the Family, 50*, 93-98. doi: 10.2307/352430

Hendrick, S. S., Dicke, A., & Hendrick, C. (1998). The Relationship Assessment Scale. *Journal of Social and Personal Relationships, 15*, 137-142. doi: 10.1177/0265407598151009

Henry, J. M., Berg, C. A., Smith, T. W., & Florsheim, P. (2007). Positive and negative characteristics of marital interaction and their association with marital satisfaction in middle-aged and older couples. *Psychology and Aging, 22*(3), 428-441. doi: 10.1037/0882-7974.22.3.428

Hinz, A., Stöbel-Richter, Y., & Brähler, E. (2001). Der Partnerschaftsfragebogen (PFB): Normierung und soziodemographische Einflussgrössen auf die Partnerschaftsqualität. *Diagnostica, 47*(3), 132-141. doi: 10.1026//0012-1924.47.3.132

Jackson, J. B., Miller, R. B., Oka, M., & Henry, R. G. (2014). Gender differences in marital satisfaction: A meta-analysis. *Journal of Marriage and Family, 76*, 105-129. doi: 10.1111/jomf.12077

Johnson, M. P. (1973). Commitment: A conceptual structure and empirical application. *Sociological Quarterly, 14*, 395-406.

Johnson, M. P. (1999). Personal, moral, and structural commitment to relationships: Experience of choice and constraint. In J. M. Adams, & W. H. Jones (Eds.), *Handbook of interpersonal commitment and relationship stability* (pp. 73-87). Dordrecht, the Netherlands: Kluwer Academic.

Johnson, D. R., White, L. K., Edwards, J. N., & Booth, A. (1986). Dimensions of marital quality: Toward methodological and conceptual refinement. *Journal of Family Issues, 7*(1), 31-49. doi: 10.1177/019251386007001003

Karney, B. R., & Bradbury, T. N. (1995). The longitudinal course of marital quality and stability: A review of theory, method, and research. *Psychological Bulletin, 118*(1), 3-34. doi: 10.1037/0033-2909.118.1.3

Karney, B. R., & Bradbury, T. N. (1997). Neuroticism, marital interaction, and the trajectory of marital satisfaction. *Journal of Personality and Social Psychology, 72*, 1075-1092. doi: 10.1037/0022-3514.72.5.1075

Kaslow, F., & Robison, J. A. (1996). Long-term satisfying marriages: Perceptions of contributing factors. *The American Journal of Family Therapy, 24*(2), 153-170. doi: 10.1080/01926189608251028

Katz, S., & Marshall, B. (2003). New sex for old: Lifestyle consumerism, and the politics of aging well. *Journal of Aging Studies, 17*(1), 3-16.

Kenny, D. A., & Cook, W. L. (1999). Partner effects in relationship research: Conceptual issues, analytic difficulties, and illustrations. *Personal Relationships, 6,* 433-448. doi: 10.1111/j.1475-6811.1999.tb00202.x

Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis.* New York: Guilford Press.

Klann, N., Hahlweg, K., Snyder, D. K., & Limbird, C. (2006). *Einschätzung von Partnerschaft und Familie EPF. Manual für die deutsche Form des Marital Satisfaction Inventory–Revised MSI–R von Snyder (1997).* Göttingen, Germany: Hogrefe.

Kulik, L. (2002). Marital equality and the quality of long-term marriage in later life. *Ageing and Society, 22,* 459-481. http://dx.doi.org/10.1017/S0144686X02008772

Landis, M., Peter-Wight, M., Martin, M., & Bodenmann, G. (2013). Dyadic coping and marital satisfaction of older spouses in long-term marriage. *GeroPsych, 26*(1), 39-47. doi: 10.1024/1662-9647/a000077

Ledermann, T., Bodenmann, G., Rudaz, M., & Bradbury, T. N. (2010). Stress, communication, and marital quality in couples. *Family Relations, 59,* 195-206. doi: 10.1111/j.1741-3729.2010.00595.x

Lee, J. E., Zarit, S. H., Rovine, M. J., Birditt, K. S., & Fingerman, K. L. (2011). Middle-aged couples‘ exchanges of support with aging parents: Patterns and association with marital satisfaction. *Gerontology, 58,* 88-96. doi: 10.1159/000324512

Lemieux, R., & Hale, J. L. (1999). Intimacy, passion, and commitment in young romantic relationships: Successfully measuring the triangular theory of love. *Psychological Reports, 85,* 497-503. doi: 10.2466/pr0.1999.85.2.497

Levenson, R. W., Carstensen, L. L., & Gottman, J. M. (1993). Long-term marriage: Age, gender, and satisfaction. *Psychology and Aging, 8*(2), 301-313. doi: 10.1037/0882-7974.8.2.301

Lewis, R., & Spanier, G. (1979). Theorizing about the quality and stability of marriage. In W. E. Burr, R. Hill, F. I. Nye, & I. L. Riss (Eds.), *Contemporary theories about the family, Vol. I* (pp. 268-294). New York: Free Press.

Locke, H. J., & Wallace, K. M. (1959). Short marital adjustment and prediction tests: Their reliability and validity. *Marriage and Family Living, 21*, 251-255. doi: 10.2307/348022

Lodge, A. C., & Umberson, D. (2012). All shook up: Sexuality of mid- to later life married couples. *Journal of Marriage and Family, 74*, 428–443. doi: 10.1111/j.1741-3737.2012.00969.x

Malouff, J. M., Thorsteinsson, E. B., Schutte, N. S., Bhullar, N., & Rooke, S. E. (2010). The Five-Factor Model of personality and relationship satisfaction of intimate partners: A meta-analysis. *Journal of Research in Personality, 44*, 124-127. doi: 10.1016/j.jrp.2009.09.004

Martin, M., & Moor, C. (2012). How psychology as a discipline can profit from focusing psychological research on the individual. *European Psychologist, 17*(1), 28-33.

Martin, M., Peter-Wight, M., Braun, M., Hornung, R., & Scholz, U. (2009). The 3-phase-model of dyadic adaptation to dementia: Why it might sometimes be better to be worse. *European Journal of Ageing, 6,* 291-301. doi: 10.1007/s10433-009-0129-5

Mayer, K. U., & Baltes, P. B. (1996). *Die Berliner Altersstudie ein Projekt der Berlin-Brandenburgischen Akademie der Wissenschaften (Vol. 3).* Berlin: Akademie-Verlag.

McNulty, J. K., & Karney, B. R. (2001). Attributions in marriage: Integrating specific and global evaluations of a relationship. *Personality and Social Psychology Bulletin, 27*, 943-955. doi: 10.1177/0146167201278003

Moen, P., Kim, J. E., & Hofmeister, H. (2001). Couples‘ work/retirement transitions, gender, and marital quality. *Social Psychology Quarterly, 64*(1), 55-71. http://www.jstor.org/stable/3090150

Mehl, M. R., & Robbins, M. L. (2012). Naturalistic observation sampling: The Electronically Activated Recorder (EAR). In M. R. Mehl & T. S. Conner (eds.), *Handbook of research methods for studying daily life*. New York, NY: Guilford Press.

Neff, L. A., & Broady, E. F. (2011, June 20). Stress resilience in early marriage: Can practice make perfect?. *Journal of Personality and Social Psychology*. Advance online publication. doi:10.1037/a0023809

Neff, L. A., & Karney, B. R. (2003). The dynamic structure of relationship perceptions: Differential importance as a strategy of relationship maintenance. *Personality and Social Psychology Bulletin*, *29*(11), 1433-1446. doi: 10.1177/0146167203256376

Neff, L. A., & Karney, B. R. (2004). How does context affect intimate relationships? Linking external stress and cognitive processes within marriage. *Personality and Social Psychology Bulletin*, *30*, 134-148. doi: 10.1177/0146167203255984

Norton, R. (1983). Measuring marital quality: A critical look at the dependent variable. *Journal of Marriage and the Family, 45*, 141-151. doi: 10.2307/351302

O'Rourke, N., Claxton, A., Chou, P. H. B., Smith, J. Z., & Hadjistavropoulos, T. (2011). Personality trait levels within older couples and between-spouse trait differences as predictors of marital satisfaction. *Aging & Mental Health*, *15*(3), 344-353. doi: 10.1080/13607863.2010.519324

Peterson, J. L., & Miller, C. (1980). Physical attractiveness and marriage adjustment in older american couples. *The Journal of Psychology*, *105*, 247-252. doi: 10.1080/00223980.1980.9915158

Petrican, R., Burris, C. T., Bielak, T., Schimmack, U., & Moscovitch, M. (2011). For my eyes only: Gaze control, enmeshment, and relationship quality. *Journal of Personality and Social Psychology, 100*(6), 1111-1123. doi: 10.1080/00223980.1980.9915158

Pines, A. M. (1987). Sex differences in marriage burnout. *Israel Social Science Research, 5*(1), 60-75.

Pope, A. L. (2013). Intimate relationship commitment: An integrated conceptual model. *Journal of Couple & Relationship Therapy: Innovations in Clinical and Educational Interventions, 12*(3), 270-289. doi: 10.1080/15332691.2013.806717

Randall, A. K., & Bodenmann, G. (2009). The role of stress on close relationships and marital satisfaction. *Clinical Psychology Review, 29*, 105-115. doi: 10.1016/j.cpr.2008.10.004

Rosowsky, E., King, K. D., Coolidge, F. L., Rhoades, C. S., & Segal, D. L. (2012). Marital satisfaction and personality traits in long-term marriages: An exploratory study. *Clinical Gerontologist, 35*(2), 77-87. doi: 10.1080/07317115.2011.639855

Rusbult, C. E., Martz, J. M., & Agnew, C. R. (1998). The Investment Model Scale: Measuring commitment level, satisfaction level, quality of alternatives, and investment size. *Personal Relationships, 5*(4), 357-391.

Sabatelli, R. M. (1988). Measurement issues in marital research: A review and critique of contemporary survey instruments. *Journal of Marriage and Family*, *50*(4), 891-915. doi: 10.2307/352102

Sander, J., & Böcker, S. (1993). Die Deutsche Form der Relationship Assessment Scale (RAS): Eine kurze Skala zur Messung der Zufriedenheit in einer Partnerschaft [The German version of the Relationship Assessment Scale (RAS): A short scale for measuring satisfaction in a dyadic relationship]. *Diagnostica, 39,* 55-62.

Schaie, K. W. (1996). *Intellectual development in adulthood: The Seattle longitudinal study.* Cambridge: Cambridge University Press.

Schermelleh-Engel, K., Moosbrugger, H. & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *MPR-online, 8*(2), 23-74.

Schneewind, K. A., Graf, J., & Gerhard, A.-K. (1999). Paarbeziehungen: Entwicklung und Intervention. In L. v. Rosenstiel, C. M. Hockel, & W. Molt (Eds.), *Handbuch der Angewandten Psychologie* (pp. 1-20). Landberg/Lech: ecomed.

Schumm, W. R., Milliken, G. A., Poresky, R. H., Bollman, S. R., & Jurich, A. P. (1983). Issues in measuring marital satisfaction in survey research. *International Journal of Sociology of the Family, 13*, 129-143. http://www.jstor.org/stable/23027787

Seery, M. D., Holman, E. A., & Silver, R. C. (2010). Whatever does not kill us: Cumulative lifetime adversity, vulnerability, and resilience. *Journal of Personality and Social Psychology*, *99*(6), 1025-1041. doi: 10.1037/a0021344.

Shiota, M. N., & Levenson, R. W. (2007). Birds of a feather don't always fly farthest: Similarity in Big Five personality predicts more negative marital satisfaction trajectories in long-term marriages. *Psychology and Aging, 22*(4), 666-675. doi: 10.1037/0882-7974.22.4.666

Snyder, D. K. (1997). *Marital Satisfaction Inventory, Revised (MSI-R).* Los Angeles: Western Psychological Services.

Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing quality of marriage and similar dyads. *Journal of Marriage and the Family, 38*, 15-28. doi: 10.2307/350547

Sprecher, S. (1992). How men and women expect to feel and behave in response to inequity in close relationships. *Social Psychology Quarterly, 55*, 57-69. http://www.jstor.org/stable/2786686

Sprecher, S., & Cate, R. M. (2004). Sexual satisfaction and sexual expression as predictors of relationship satisfaction and stability. In J. H. Harvey, A. Wenzel, & S. Sprecher (Eds.), *The handbook of sexuality in close relationships* (pp. 235–256). Mahwah, NJ: Erlbaum.

Story, L.B., & Bradbury, T.N. (2004). Understanding marriage and stress: Essential questions and challenges. *Clinical Psychology Review, 23*, 1139-1162. doi: 10.1016/j.cpr.2003.10.002

Subiaz, T., & Martin, M. (2014). Predictors of relationship satisfaction among middle-aged and older couples in long-term relationships. Manuscript submitted for publication.

Sweeney, M. M. (2010). Remarriage and stepfamilies: Strategic sites for family scholarship in the 21st century. *Journal of Marriage and Family, 72*, 667-684. doi: 10.1111/j.1741-3737.2010.00724.x

Swensen, C. H., Nelson, M. K., Warner, J., & Dunlap, D. (1992a). Scale of feelings and behavior of love: Revised. *Innovations in Clinical Practice*, *11*, 303-314.

Swensen, C. H., Nelson, M. K., Warner, J., & Dunlap, D. (1992b). Scale of marriage problems: Revised. *Innovations in clinical practice: A source book*, 293.

Swensen, C. H., & Trahaug, G. (1985). Commitment and the long-term relationship. *Journal of Marriage and Family, 47*(4), 939-945. doi: 10.2307/352337

Szinovacz, M. (1996). Couples' employment/retirement patterns and perceptions of marital quality. *Research on Aging, 18*(2), 243-268. doi: 10.1177/0164027596182005

Tamres, L. K., Janicki, D., & Helgeson, V. S. (2002). Sex differences in coping behavior: A meta-analytic review and an examination of relative coping. *Personality and Social Psychology Review, 6*(1), 2-30. doi: 10.1207/S15327957PSPR0601_1

Terman, L. M. (1938). *Psychological factors in marital happiness*. New York: McGraw-Hill.

Thomsen, D. G., & Gilbert, D. G. (1998). Factors characterizing marital conflict states and traits: Physiological, affective, behavioral, and neurotic variable contributions to marital conflict and satisfaction. *Personality and Individual Differences, 25*, 833-855. doi: 10.1016/S0191-8869(98)00064-6

Trudel, G., Dargis, L., Villeneuve, L., Cadieux, J., Boyer, R., & Préville, M. (2013). Marital, sexual and psychological functioning of older couples living at home: The results of a national survey using longitudinal methodology (part one). *Sexologies, 22*, 101-107. doi: 10.1016/j.sexol.2013.03.005

Uchino, B. N., Cacioppo, J. T., & Kiecolt-Glaser, J. K. (1996). The relationship between social support and physiological processes: A review with emphasis on underlying mechanisms and implications for health. *Psychological Bulletin, 119,* 488-531.

VanLaningham, J., Johnson, D. R., & Amato, P. R. (2001). Marital happiness, marital duration, and the U-shaped curve: Evidence from a five-wave panel study. *Social Forces, 79*(4), 1313-1341. doi: 10.1353/sof.2001.0055

Vaughn, M. J., & Baier, M. E. M. (1999). Reliability and validity of the Relationship Assessment Scale. *American Journal of Family Therapy, 27,* 137-147. doi: 10.1080/019261899262023

Walker, E., Hernandez, A. V., & Kattan, M. W. (2008). Meta-analysis: Its strengths and limitations. *Cleveland Clinic Journal of Medicine, 75*, 431-439. doi: 10.3949/ccjm.75.6.431

Walker, R., Isherwood, L., Burton, C., Kitwe-Magambo, K., & Luszcz, M. (2013). Marital satisfaction among older couples: The role of satisfaction with social networks and psychological well-being. *International Journal of Aging and Human Development, 76*(2), 123-139. doi: 10.2190/AG.76.2.b

Weishaus, S., & Field, D. (1988). A half century of marriage: Continuity or change?. *Journal of Marriage and Family, 50*(3), 763-774. doi: 10.2307/352645

Weiss, R. L. (1980). Strategic behavioral marital therapy: Toward a model for assessment and intervention, Vol. 1. In J. P. Vincent (Ed.), *Advances in family intervention, assessment and theory* (pp. 229-271). Greenwich, CT: JAI Press.

White, L. K. (1990). Determinants of divorce: A review of research in the eighties. *Journal of Marriage and the Family, 52*, 904-912. doi: 10.2307/353309

Wunderer, E., & Schneewind, K. A. (2008). The relationship between marital standards, dyadic coping and marital satisfaction. *European Journal of Social Psychology, 38*, 462-476. doi: 10.1002/ejsp.405

Yeh, H.-.C., Lorenz, F. O., Wickrama, K. A. S., Conger, R. D., & Elder, G. H., Jr. (2006). Relationships among sexual satisfaction, marital quality, and marital instability at midlife. *Journal of Family Psychology, 20*(2), 339-343. doi: 10.1037/0893-3200.20.2.339

Appendix

Relationship Assessment Scale (RAS; Hendrick, 1988)[3]

Please mark on the answer sheet the letter for each item which best answers that item for you.

How well does your partner meet your needs?

A	B	C	D	E
Poorly		Average		Extremely well

In general, how satisfied are you with your relationship?

A	B	C	D	E
Unsatisfied		Average		Extremely satisfied

How good is your relationship compared to most?

A	B	C	D	E
Poor		Average		Excellent

How often do you wish you hadn't gotten in this relationship?

A	B	C	D	E
Never		Average		Very often

To what extent has your relationship met your original expectations:

A	B	C	D	E
Hardly at all		Average		Completely

How much do you love your partner?

A	B	C	D	E
Not much		Average		Very much

How many problems are there in your relationship?

A	B	C	D	E
Very few		Average		Very many

NOTE: Items 4 and 7 are reverse scored. A=1, B=2, C=3, D=4, E=5. You add up the items and divide by 7 to get a mean.

[3] From „A generic measure of relationship satisfaction" by S. S. Hendrick, 1988, *Journal of Marriage and the Family, 50*, 93-98. Copyright (1988) by the Name of Copyright Holder. Reprinted with permission.

Curriculum Vitae

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